SPECIAL ISSUE The Ultimate Buying Guide SPECIAL ISSUE

For 1993

Includes all the NEW MACS!

MacUser

The MacUser 1500

Your complete guide to 1500 of the best (and worst) Macintosh hardware and software products



HOW TO BUY:

- Hard-Disk Drives
- Word Processors
- Memory
- Spreadsheets
- Input Devices
- Utilities
- CD-ROM Drives
- Games
- Fax Modems
- Databases
- Scanners
- Graphics Software
- Monitors

... and more



CALL (206) 936-8661. MICROSOFT IS A REGISTERED TRADEMARK OF MICROSOFT CORPORATION. MACINTOSH IS A REGISTERED TRADEMARK OF APPLE COMPUTER, INC. AVERY IS A REGISTERED TRADEMARK OF AVERY INTERNATIONAL CORP.

But with new Microsoft Works 3.0, there's no telling where he'll go next.

In the last few years, Frank's business has come a long way. So has Microsoft® Works. Coincidence? You won't think so when you see how far new Works 3.0 can take *your* business. And this holds true whether you're working on *Star Trek: The Motion Picture* (like Frank) or something a little more down-to-earth.

That's because new Works comes with an enhanced word processor, database, spreadsheet—with charting, of course—drawing and communications tools. All of which have been redesigned to work even better together. But wait! There are still more features.



NEW MICROSOFT WORKS 3.0.

Like built-in business templates. You just plug in the information, and Works does the rest: income statements, payroll, and just about anything else you can think of. Perhaps this is the reason why Microsoft Works has been the industry's leading integrated product.

By the way, you'll even have a handy set of Avery® label forms online. When it comes to sending out flyers or bills, they make printing mailing labels just as easy as licking the stamps. And with its online Help, tutorial, and the *Getting Started* booklet, absolutely everything about Works is easy.

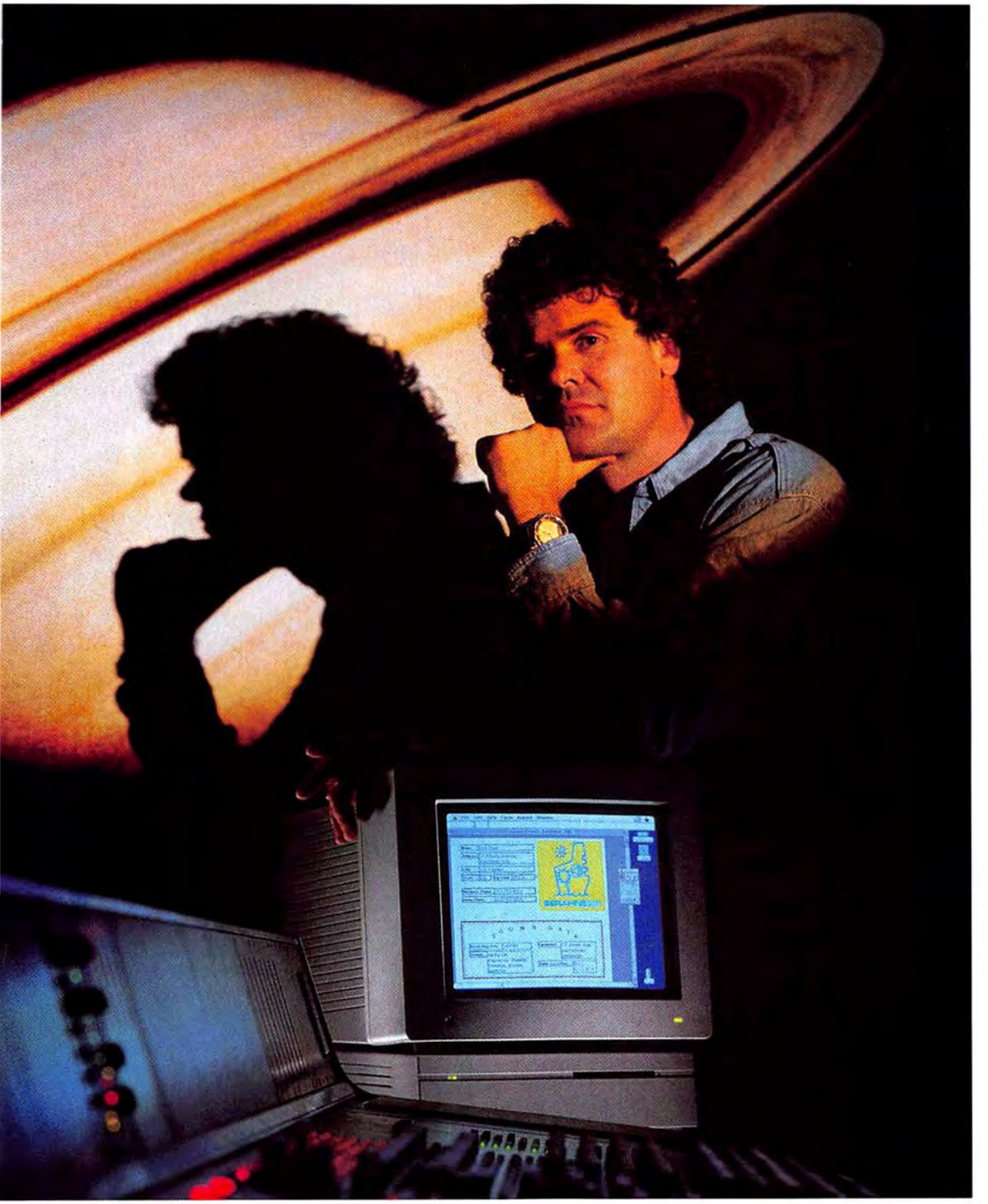
But don't let that fool you.

Works is powerful enough to grow with your business. To see how far, call (800) 541-1261, Department X43, for the closest Macintosh® reseller.

Microsoft®
MAKING IT EASIER

© 1992 MICROSOFT CORPORATION. ALL RIGHTS RESERVED. PRINTED IN THE U.S.A. IN THE 50 UNITED STATES, CALL (800) 541-1261, DEPT. X43; CUSTOMERS IN CANADA, CALL (800) 563-9048. OUTSIDE THE 50 UNITED STATES AND CANA

Frank has been under the sea, into the afterlife, and to the end of the universe.



FRANK SERAFINE, A MICROSOFT WORKS
USER SINCE 1986, ALSO DESIGNED SOUND EFFECTS
FOR *POLTERGEIST II: THE OTHER SIDE.*

BOTTOM LINE DISTRIBUTION

Macintosh technology is getting really cool these days. That means difficult choices and tough decisions. We may not have all the answers, but we can definitely point you in the right direction.

When it's all said and done, we want to be your Macintosh resource.

And that's our **Bottom Line.**

SUPERMAC

VIDEOSPIGOT / PRO $489/$1225
Quicktime Movies • Single Slot Digital-video frame grabber
Accelerated 24-bit color interface bundled with VideoSpigot

THUNDERSTORM / THUNDERSTROM PRO $809/$2789
Graphics accelerator adds performance to Adobe PhotoShop filters
ThunderStorm Pro bundles the ThunderStorm with the Thunder/24

SPECTRUM/24 SERIES III $809
Accelerated 24-bit color interface for 21" display with LC, IIsi, or NuBus

THUNDER/8 / THUNDER/24 CALL
Thunder/8 – Accelerated 8-bit color interface, up to 8MB GWorld
Thunder/24 – Accelerated 24-bit color interface, up to 8MB GWorld

DIGITALFILM $4499
On-line, digital-video editing system, includes Adobe Premiere 2.0

SUPERMATCH 20-T MULTIMODE TRINITRON $2449
Two-page, 20-inch Trinitron multimode display

SUPERMATCH 17-T TRINITRON $1049
Full-page, 17-inch Trinitron display

SPECTRUM/24 PDQ PLUS $1649
Accelerated 24-bit color interface for 21" display

SPECTRUM/8•24 PDQ $799
Accelerated 24-bit color interface for 13", 16-bit for 17" & 8-bit for 21"

SPECTRUM/8 $478
8-bit color interface for 21" display with LC, IIsi or NuBus

SUPERMATCH 21 TWO-PAGE COLOR $2775
Two-page, 21-inch color display

PLATINUM 20 / 21 TWO-PAGE $899/$979
Two-page, 20-inch / 21-inch gray-scale display

RASTEROPS

PAINTBOARD LI $789
Accelerated 24-bit color interface for 13, 14, 16, 17, 19 & 20" displays

PROCOLOR 32 $2995
32-bit True-Color interface

MEDIA TIME $1515
24-bit color interface for 13", with video display/capture & 16-bit audio

24SX / 24MX / 24MXQ $605/$1135/$1135
Accelerated 24-bit color interface for 13" / 16" with Mac II / 21" with Quadra

24STV / 24XLTV $755/$2548
24STV – Accelerated 24-bit color for 13", video display/capture & QuickTime
24XLTV – Accelerated 24-bit color, video display/capture & QuickTime

8XLI / 24XLI $899/$1699
8XLi – Accelerated 8-bit color interface, upgradeable to 24-bit
24XLi – Accelerated 24-bit color interface ; drives up to 21" Monitors

COLORBOARD 264/SE30 $685
24-bit color interface for 13" display with SE30

CORRECTCOLOR CALIBRATOR $1815
Calibrates displays with interface cards for color accuracy and consistency

21" COLOR DISPLAY $2569
Two-page, 21-inch color display

20" MULTI-SCAN TRINITRON $2149
Two-page, 20-inch Trinitron display

20" MULTIMODE HITACHI $1325
Two-page, 20-inch Trinitron display

SWEET 16 SYSTEM $1899
Full-page, 16-inch color display comes with 24MX or 24MXQ interface

CORRECTPRINT 300 $6899
Dye sublimation printer offers 300 dpi photo-realistic output



NEC SILENTWRITER 95
300DPI, Postscript Level 2
Auto PC/Mac Switching, 6ppm
$1359

RASTEROPS CORRECTPRINT 300
300 DPI Dye Sublimation
$6899

QMS 860 HAMMERHEAD
600DPI, 8ppm, Taboid 11x17,
RISC, 12MB RAM
$4025

HP DESKWRITER
$374
HP DeskWriter C $615

TI MICROLASER TURBO
9ppm, Postscript Level 2, RISC
$1474
PS/17 $1175 PS/35 $1319

GCC PLP II
300 DPI Laser Printers
$799

DAYSTAR DIGITAL

UNIVERSAL POWERCACHE
ALL DAYSTAR POWER CACHES PRICES INCLUDE ADAPTOR
Choose any DayStar model:

33MHz POWERCACHE $549
33MHz POWERCACHE WITH 68882 FPU $679
40MHz POWERCACHE $745
40MHz POWERCACHE WITH 68882 FPU $905
50MHz POWERCACHE $1075
50MHz POWERCACHE WITH 68882 FPU $1249

FASTCACHE IISI 64K $265
64K Static RAM cache for IIsi includes PDS adapter & optional math chip

FASTCACHE IICI 64K $195
64K Static RAM cache for IIci

FASTCACHE QUADRA 128K $375
128K Static RAM cache for Quadra

DUALPORT IISI $169
PDS adapter adds 68882 math chip, IIsi PDS and cache connector

COMBOCACHE IISI $219
32K Static RAM cache with two PDS & optional math chip

PLI

INFINITY 40 / 88 TURBO EXTERNAL $519 / $649
44MB or 88MB SyQuest removable cartridge drives, include one cartridge

INFINITY 128MB 3.5-INCH OPTICAL $1549
Removable, rewritable optical cartridge drive

INFINITY FLOPTICAL 21MB $339
Stores 21MB on 3.5" floptical diskettes, includes one cartridge

PLI 4GB DAT DRIVE $1399
4.0GB DAT back-up drive

QUICK SCSI $319
SCSI-2 NuBus host adapter

PLI MINIARRAY 480 $2249
480MB fixed hard drive with QuickSCSI

PLI 850MB MINIARRAY $3599
850MB fixed hard drive with QuickSCSI

PLI 1.0GB MINIARRAY $4099
1.0GB fixed hard drive with QuickSCSI

INFINITY OPTICAL 5.25" 600MB SONY $2769
Removable, rewritable optical cartridge drive

INFINITY MAXOPTICAL 1GB $3299
1.0GB Optical disk drive with 35ms average seek time

NEC

SILENTWRITER MODEL 95 $1369
Laser printer with 6 ppm, 300 dpi output has 35 fonts & 2MB RAM

SILENTWRITER 2MB / 4MB RAM UPGRADE $125/$225
RAM upgrade for SilentWriter Model 95

SILENTWRITER MODEL 95 FAX UPGRADE $529
Adds fax capability to SilentWriter Model 95

CDR-37 $406
Portable CD-ROM Reader

CDR-74 $849
Multimedia portable CD-ROM Reader

MULTISYNC 3FGX / 4FG $629/$755
15-inch multifrequency color displays

MULTISYNC 5FG / 6FG $1349 / $2375
17-inch & 21-inch multifrequency color displays

MACFG 24X / 8X $1549/$737
Accelerated 24-bit / 8-bit color interface

COLORMATE 300 PS40 / PS80 $3999/CALL
PS40 – Color laser printer with 17 PostScript fonts & 4MB RAM
PS80 – Color laser printer with 35 PostScript fonts & 8MB RAM

BOTTOM LINE DISTRIBUTION 1-900-420-3525
$2 per minute

24-HOUR INTERNATIONAL FAX LINE 512-476-6399 ▸ 1219 WEST 6TH STREET ▸ AUSTIN, TEXAS 78703

Macintosh® Systems



PowerBook 145	PowerBook 160	PowerBook 180	PowerBook Duo 210	PowerBook Duo 230	Macintosh Classic II	Macintosh LC II	Macintosh IIsi	Macintosh IIci	Macintosh IIvx	Macintosh Quadra 700	Macintosh Quadra 950
CONFIGURATION											
4MB RAM 40MB Drive **$1999**	4MB RAM 40MB Drive **$2270**	4MB RAM 80MB Drive **$3840**	4MB RAM 80MB Drive **$2105**	4MB RAM 80MB Drive **$2439**	4MB RAM 40MB Drive **$990**	4MB RAM 40MB Drive **$1159**	3MB RAM 40MB Drive **$1515**	5MB RAM Drive Optional **$2249**	4MB RAM 80MB Drive **$2619**	4MB RAM DriveOptional **$3499**	8MB RAM Drive Optional **$5475**
4MB RAM 80MB Drive **$2349**	4MB RAM 120MB Drive **$2945**	4MB RAM 120MB Drive **$4179**	4MB RAM 80MB Drive **$2105**	4MB RAM 120MB Drive **$2775**	4MB RAM 80MB Drive **$1119**	4MB RAM 80MB Drive **$1249**	5MB RAM 105MB Drive **$2150**	5MB RAM 240MB Drive **$2725**	5MB RAM 80MB Drive CD-ROM **$2859**	4MB RAM 420MB Drive **$3999**	8MB RAM 240MB Drive **$5899**
SPECIFICATIONS											
25MHz 68030 Optional FPU	25MHz 68030 Optional FPU	33MHz 68030 68882 FPU	25MHz 68030 Optional FPU	33MHz 68030 Optional FPU	16MHz 68030 Optional FPU	16MHz 68030 Optional FPU	20MHz 68030 Optional FPU	25MHz 68030 68882 FPU	33MHz 68030 Optional FPU	25MHz 68040 Built-in FPU	33MHz 68040 Built-in FPU
10" Mond Active Matrix	10" 16-gray Backlit LCD	10" 16-gray Active Matrix	9" 16-gray 8-bit video out	9" 16-gray 16-bit video out	Built-in monochrome	8-bit 12 or 13" video output	8-bit 12 or 13" video output	8-bit 13" video output	8-bit 12 or 13" video output	8-24bit 12-21" video output	8-24bit 12-21" video output
1 PDS	1 PDS	1 PDS	Dock Connector	Dock Connector	1 PDS	1 PDS	1 PDS/NuBus	1 PDS & 3 NuBus	1 PDS / 3 NuBus	1 PDS & 2 NuBus	1 PDS & 5 NuBus



BOTTOM LINE DISTRIBUTION

1-900-420-3525

$2 Per Minute

24-Hour International Fax Line 512-476-6399 ▸ 1219 West 6th Street ▸ Austin, Texas, 78703

Full-time international sales representatives offer language interpretation in German, French, Italian, Spanish, Japanese, Arabic, Russian, Greek and Cantonese.

Εξυπηρετουμε διεθνειΣ παραγγελιεΣ

Nous acceptons des commandes internationales

日本語での国際取引も扱っております。

Se Hace Pedidos Internacional

Internationale Händlerkonditionen

Мы говорим по-русски

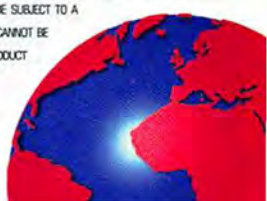
INTERNATIONAL ORDERS

Bottom Line understands the special needs of the international Macintosh user and reseller, and we extend the extra level of support international clients require. We have a 24-hour international fax line, and we stock 220-volt versions of most hardware. Bottom Line offers discounted rates with DHL, UPS and Federal Express, and customs brokerage through the courier. Delivery time to most countries is two to three days.

How to order: Call 900-420-3525. $2 minute phone charge. **Payment:** Visa, Mastercard, Discover -no credit card surcharges, checks, and COD's. $6,000 maximum on COD's **Tax:** Texas residents add 8% sales tax. **Prices** and items subject to change and availability. **International:** 5% surcharge on international orders. **Mail In** orders accepted. **Terms:** You are **not** charged until your order is shipped. Phone charges cannot be refunded. **Shipping:** minimum $5-UPS Ground, Blue, Red, Federal Express. **Returns** must be in original condition and package and require an RMA#. Seal must not be opened on software. Returns may be subject to a restocking fee. Ask for details when ordering. Bottom Line Distribution cannot be responsible for errors in typography or photography. All brands, and product names are trademarks of their respective holders

VISA MasterCard DISCOVER DHL Express

Ad Code: BG01



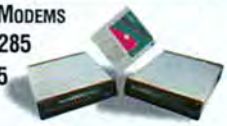
Networking

Asanté EN/SC SCSI Ethernet	$302
CE Software QuickMail 10 User v.2.5	$359
DaynaStar Minihub 12-port	$657
Farallon Phonenet Star Connector	$849
Farallon Phonenet Card EN	$165

Supra FaxModems

14.400 V.32bis **$285**

9600 V.32 **$225**



Phonenet 10-pack	$188
Shiva Ethergate	$1265

Modems & Faxes

DoveFax & DoveFax Plus	$175 / $225
Hayes Ultra 9600/SC II	$675
LogiCode Quicktel Xeba 9696 V.42bis	$386
Practical Peripherals PM9600SA	$455
Prometheus 24/96 S/R Fax	$259
Prometheus 96/96 S/R Fax	$599
Zoom AFX External 96/48 S/R Fax	$99

Printers

Apple StyleWriter	$339
Apple Personal LaserWriter NTR	$1675
Apple LaserWriter IIf	$2199
Apple LaserWriter IIg	$2775
GCC BLP Elite	$1179
GCC BLP II / IIs	$1525/$1699
GCC PLP II / IIs	$799/$1099
GCC Wide Writer 360	$1449
Generation Systems GS309	$1834
Generation Systems GS415	$4445
Hewlett Packard 300XL	$2325
Hewlett Packard DeskWriter	$375
Hewlett Packard DeskWriter C	$615
Hewlett Packard LaserJet 4M	Call
Laser Master Max Writer 400	Call
NewGen Printer line	Call
QMS PS-410	$1475
QMS PS-860	$4025
QMS ColorScript 210	$4299
QMS ColorScript 230	$6899
Seiko ColorPoint PS – A Size 6MB	$3575
Tektronix Color Quick InkJet	$1651
Texas Instruments MicroLaser PS 17	$1175
Texas Instruments MicroLaser PS 35	$1319
Texas Instruments MicroLaser Turbo	$1474

Displays

Apple 12" RGB Display	$399
Apple 13" RGB Display	$469
Apple 14" RGB Display	$545
Apple 16" RGB Portrait Display	$1199
Apple 16"/E-Machines SX bundle	$1499
Apple 21" RGB Display	$3449
Envisio PowerBook Adaptor 4MB	$975
Mass Micro Quick Image 24	$299
Seiko CM-1445	$539
Sony CPD-1304S	$599
Sony CPD-1604S	$1029
Sony GVM-1936	$2190

Sony 14"& 17" Color Displays

High Resolution Trinitron

1304 $599

1604 $1029



Accelerators and Cache

AE QuickSilver IIsi	$185
AE QuickSilver IIsi with FPU	$245
AE TransWarp LC 33MH	$749
AE TransWarp LC 33MH with FPU	$895
DGR Tech Max LC Expansion Chassis	$349
SIMMs: all types – Best Prices	Call
Motorola PMMU 68852	$39
Newer Technologies Image Magic	Call
Newer Technologies Quadra Overdrive	$119

Scanners

Hewlett Packard ScanJet IIC	$1299
Microtek ScanMaker II	$875
Microtek ScanMaker IIxe	$1169
Microtek 1850 Slidescanner	$1399
Sharp JX320 with interface	$999
Sharp JX450 with interface	$4159
Sharp Transparency Adaptor	$849
Tamarack 8000C with PhotoShop	$1499
Umax 630 / with Transparency	$1079/$1749
Umax 840 / with Transparency	$1599/$2273
Umax 1200 / with Transparency	$2975/$3625
Umax Transparency Adapter	$679
Color Encore calibration software (with purchase of any scanner)	$149

Drives & Tapes

Internal Drive Kit	$29
External Drive Kit	$99
Applied Engineering 1.44 Drive	$209
Applied Engineering Plus Drive	$283
Bernoulli Pro 90MB with interface	$539
DGR 128REM 3.5" MO	$1199
DGR 128REM Turbo 3.5" MO	$1299
DGR 256REM 3.5" MO	$1699
Fujitsu 425MB	$999
Fujitsu 520MB	$1099
Fujitsu 1.2GB	$1679
Quantum 105MB LPS	$325
Quantum ProDrive 240MB	$599
Quantum 425MB	$949
Toshiba 830	$1245
All Seagate Drives	Call



Microsoft Word 5.0 **$279**

MacAcademy Video Training Tapes **$36**

Adobe Photoshop **$499**

Quark XPress 3.2 **$499**

Quark Passport International Language Support **$1499**

ACT! Contact Manager **$232**

Input/Output

Apple Standard Keyboard	$85
Apple Extended Keyboard	$170
DataDesk 101 Keyboard	$115
EMAC Silhouette Trackball	$75
Kensington Turbo Mouse 4.0	$101
Keytronic MacPro Plus Keyboard	$115

SyQuest Cartridges

44MB $62

88MB $99



CD-ROM

Chinon CD-ROM	$525
EMAC CD-ROM Drive	$339
Toshiba CD-ROM XM 3201A	$685
Microsoft Office CD ROM	$574
Type Gallery PS	$229
NEC Clip Art 3-D	$221
NEC CDR-74 w/ Gallery	$849

Software

Act! Contact Manager v.1.0	$232
Adobe Illustrator v.3.2 w/ATM	$335
Adobe PhotoShop	$499
Adobe Type Align	$62
Adobe Type Reunion	$36
Adobe Streamline v.2.0	$115
AfterDark & More After Dark Bundle	$37
Aldus Freehand v.3.1	$369
Aldus PageMaker v.4.2A	$475
Aldus Superpaint v.3.0	$129
Aldus Gallery Effects v.1.0	$129
Aldus Persuasion v.2.1	$318
At Once! v.1.2	$177
AutoDoubler v.2.0	$52
Canvas v.3.0	$239
Claris Works v.1.0	$184
Color Encore (Full Version)	$249
Connectix PowerBook Utilities	$46
Disk Doubler v.3.7	$39
EFi Cachet	$459
Far Side Calendar v.2.0	$46
FileMaker Pro v.2.0	$244
FontMonger v.1.0	$65
Foxbase +Mac v.2.1	$265
Fractal Design Painter v.1.2	$229
FrameMaker v.3.0	$549
Mac Academy Video Training Tapes	$36
MacDraw Pro v.1.5	$249
MacProject II v.2.5	$329
MacroMedia FilmMaker	$399
Macromind Director v.3.1	$849

TokaMac IIfx Accelerator

33MHz 040 Accelerator for the Macintosh IIfx

$2895



Macromind MediaMaker	$449
MicroPhone II v.4.0	$299
Microsoft Excel v.4.0	$299
Microsoft Word v.5.0	$279
Microsoft Office v.2.5	$489
MS Project v.3.0	$429
MS Works v.3.0	$159
MiniCAD v.4.0	$469
More v.3.1	$249
Norton Utilities Mac v.2.0	$88
OmniPage v.3.0	$449
OmniPage Pro v.2.1	$599
Painter v.1.2	$229
Passport Midi Interface	$63
Pixar Typestry	$159
PixelPaint Professional v.2.0	$385
Psychosis Lemmings	$32
Quark XPress v.3.2	$499
Quark Passport	$1499
Quick Keys II v.2.1.2	$87
Quicken v.3.0	$38
Retrospect v.1.3	$131
Snooper / with NuBus	$99/$135
Soft PC – All Versions	Call
Stratavision 3D v.2.5	$549
SUM II v.2.1	$87
Swivel 3D Pro v.2.0	$439
Think C v.5.0	$189
Think Pascal v.4.0	$159
Typestyler v.2.0	$122
White Knight	$75
WordPerfect v.2.1	$265
Write Now 3.0	$111







ColorPage T-16 II $1299
Two-page, 16-inch Trinitron display

ColorPage T-19 II $2395
Two-page, 19-inch Trinitron display

Futura SX $499
Accelerated 24-bit color interface for 16" display with NuBus Macs

Futura SX/8 $395
Accelerated 8-bit color interface for 16" display with NuBus Macs

Futura MX $879
Accelerated 24-bit color interface for 19" display with NuBus Macs

Futura LX $999
Accelerated 24-bit color interface for 21" display with NuBus Macs

QuickView Studio QT $1369
QuickTime digitizer card for capture/play of QuickTime movies

DoubleColor LX $619
8-bit color interface for 21" display

DoubleColor LC $399
8-bit color interface for 16" display with LC

DoubleColor SX $345
8-bit color interface for 16" and 4-bit color for 19" display

ColorLink SX/T $649
Accelerated 24-bit color for 16" & 8-bit color for 19", with 10-base-T

ColorLink EX/T $595
Accelerated 24-bit color interface for 13" display, with 10-base-T

ColorLink DC/T $469
Accelerated 8-bit color for 16" & 4-bit color for 19", with 10-base-T

Rocket 040 33 $1985
33MHz 68040 accelerator has FPU, RadiusWare, RocketWare & QuickCAD

Rocket 040 25 / 25i $1599/$1195
Rocket 25 – 25MHz 68040 accelerator has FPU, 8 SIMM slots & 040 PDS
Rocket 25i – 25MHz 68040 accelerator has 8 SIMM slots & 040 PDS

NEW! Rocket Share $415
Upgrade software allows multi-processing with one or more Radius Rocket

VideoVision $1899
24-bit color interface for 13" display, 8-bit color for 21" & video capture

Precision Color 24xp / 24xk / 24x $479/$789/$1675
Accelerated 24-bit interface for 16"/ 20"/ 21" displays

Precision Color 8xj $475
Accelerated 8-bit color interface, upgradeable to 16-bit or 24-bit

Precision Color Display 19" / 20" $2025/$2649
Two-page, 19-inch / 20-inch color display

NEW! Precision Color Pivot $925
Full-page Multisync color display in both portrait and landscape modes

Monochrome Two-Page Display 19" / 21" $885/$1125
Two-page, 19-inch / 21-inch monochrome landscape display

Precision Color Calibrator $455
Calibrates displays with interface cards for color accuracy and consistency

Color Pivot Display $1259
Full-page color display in both portrait and landscape modes

Monochrome Pivot Display $679
Full-page monochrome display in both portrait and landscape modes

E-Machines PowerLink Presentor $469
Connects PowerBook Duo to large-screen displays, televisions, LCDs

E-Machines PowerLink DeskNet $659
Adds EtherNet capability & connects PowerBook Duo to large-screen displays

Sigma Designs Power Portrait $459
16-inch portrait display plugs directly into PowerBook

Radius Power View $499
External 8-bit color interface for Macintosh PowerBooks

GCC Write Move II $525
Portable inkjet printer with 360 dpi, designed for PowerBook

PSI Powermodem IV 14400 $425

PSI Powermodem 24/96 $149

Global Village Powerport Gold $499

Connectix CPU PowerBook Utilities $46

AE Datalink & Axcell Bundle (Cellular Kit) $709

NEW! Dayna SCSILink External PB EtherNet $289

Apple PowerBook DuoDock $999

Apple External Floppy Drive $249

Apple PowerBook Battery $89

Apple PowerBook Battery Recharger $99

Kensington PowerBook Numeric Keypad $95

Bags, Carrying Cases, Accessories Call



Sharp JX-320
300DPI 24-bit Color Scanner
Transparency Adapter $849
$999

Umax 630 and 840
600 & 800DPI 24-bit Scanners
Transparency Adapter $679
$1079 / $1599

Umax 1200
1200DPI 24-bit Color Scanner
Transparency Adapter $679
$2975

Microtek 1850S
1850DPI Color Slide Scanner
Incl. Photoshop 2.01
$1399

Microtek II
1200DPI 24-bit Color Scanner
Incl. Photoshop LE
$875

Microtek IIxe
1200DPI 24-bit Color Scanner
Photoshop 2.01 & ScanMatch
$1169







Asanté 10BaseT Hub $249
10BaseT Hub with 9 ports

Asanté MacCon +IIe 64K $159
Thick/Thin EtherNet card with 64K RAM buffer for Mac II

Cayman GatorBox CS $1861
AppleTalk to EtherNet Gateway

DaynaPort e/II $169
Thin EtherNet/AUI card for Mac II

Dayna EtherPrint / Plus $329/$599
EtherPrint – Serial/Thin/AUI connection for LocalTalk printer
EtherPrint Plus – Serial/Thin/AUI connection for multiple LocalTalk devices

Farallon Star Controller $799
Intelligent hub with twelve 10Base-T ports & one AUI port

Farallon Timbuktu Remote Access Pack $849
Adds screen sharing & file transfer capabilities, includes 9600bps modem

Shiva FastPath 5 $1850
LocalTalk to EtherNet Gateway

Shiva NetBridge / TeleBridge $315/$405
NetBridge – Expands efficiency of LocalTalk network beyond 32 nodes
TeleBridge – Router between remote networks

Global Village Teleport Desktop Gold $424
14400bps Send/Receive Fax/Data Modem

Global Village Teleport Desktop Silver $346
96/96 Send/Receive Fax/Data Modem

Global Village Teleport Desktop Bronze $192
24/96 Send/Receive Fax/Data Modem

Practical Peripherals PM14400 FXSA $405
14400bps Send/Receive Fax/Data modem

Prometheus Ultima Home Office $459
96/96 Send/Receive Fax/Data modem

PSI COMstation Four $329
9600/4800 send/receive fax/data modem

PSI COMstation Five $479
14400bps V.32bis send/receive fax/data modem

Supra V.32bis / Mac Package $285/$319
V.32bis send/receive fax /data modem; Mac Package includes cable & software

Supra V.32 / Mac Package $225/$279
V.32 send/receive fax /data modem; Mac package includes cable & software

6 x 9 Standard Tablet $449
6 x 9 pressure-sensitive digitizing tablet

12 x 12 Standard Tablet $649
12 x 12 pressure-sensitive digitizing tablet

12 x 12 Electrostatic Tablet $699
12 x 12 pressure-sensitive digitizing tablet

12 x 18 Standard Tablet $959
12 x 18 pressure-sensitive digitizing tablet

12 x 18 Electrostatic Tablet $1010
12 x 18 pressure-sensitive digitizing tablet

18 x 28 Standard Tablet $2525
18 x 28 pressure-sensitive digitizing tablet

Painter $199
MacUser Eddy Award-Winning Digital Painting Software
Special price with purchase of Wacom tablet

Cordless Standard Stylus $59

Firm Cordless Pressure-Sensitive Stylus $99

Soft Cordless Pressure-Sensitive Stylus $99

BOTTOM LINE **1-900-420-3525**
$2 per minute

24-Hour International Fax Line 512-476-6399 ▸ 1219 West 6th Street ▸ Austin, Texas 78703

The Max for the LC, LCII, and Performa 400.

Transform the Macintosh LC, LC II and Performa 400 into a powerhouse Macintosh workstation.



DGR Energizes Your LC

DGR's MAX adds a supplemental 40-watt universal power supply, more than doubling the Mac LC's power capacity.

Two Internal Hard Drives

DGR's MAX offers a second internal hard drive bay that allows installation of low profile and 3.5" half-height hard drives.

Three Slots Instead of One

DGR's MAX gives you three true PDS expansion slots. Now you can utilize any combination of accelerators, ethernet cards, multimedia boards and large screen video solutions – all at once.

DGR's MAX is Plug-and-Play

Best of all, DGR's MAX is a breeze to install – just unpack it and stack it. Assembly takes seconds; the MAX snaps into place.

DGR's MAX supports all Apple-compatible PDS expansion cards, including:

- Apple IIe Emulation Card
- Applied Engineering
- Asanté
- Dayna
- DayStar Digital
- E-Machines
- Envisio
- Farallon
- Fusion Data
- Lapis
- RasterOps
- Radius
- SuperMac
- Technology Works

$349

DGR's MAX Includes:

Supplemental 40-watt Power Supply

Second Internal Hard Drive Bay

3-slot PDS Expansion





DGR's MAX transforms the Macintosh LC, LCII and Performa 400 into a powerhouse Macintosh workstation. In just seconds, the MAX snaps into place between the Macintosh CPU base and the LC lid, providing additional power, PDS expansion and internal real estate for hard drive expansion. No tools are needed, no parts discarded and the LC is in no way permanently altered – disassembly requires just seconds. Above all else, the MAX is an integrated solution designed to complement the aesthetic of Macintosh computing. As with all products from DGR Technologies, the MAX is backed by a 30-day money-back guarantee, a one-year warranty, and toll-free technical support.

ORDER DIRECT **800-235-9748**

DGR TECHNOLOGIES

To order call TOLL FREE Monday-Friday 9am to 6pm CST. DGR Technologies accepts MC, Visa, Discover, Pre-Paid, COD, & Wire Transfer Orders.
DGR TECHNOLOGIES 1219 West Sixth, Suite 205 Austin, Texas 78703 · 512 476-9855 · Fax 512 476-6399 · AppleLink: DGR

© DGR Technologies Inc.
Macintosh and Mac are registered trademarks of Apple Computer Inc. All brands and product names are trademarks of their respective holders.

The Ultimate Buying Guide

MacUser

Volume 8, Issue 13



page 250



page 73

How to Buy:

Apple Macintoshes 16
CAD Products 184
CD-ROM Drives 77, 258
Clip-Art Packages 186
Data-Acquisition and -Analysis Products 103
Database-Management Products 103
Display Systems and Video Products 106
Drawing Packages 187
Education Products 118
Entertainment Products 122
Fax Modems 81, 276
File- and Disk-Management Utilities 290
Financial-Management Products 129
Fonts and Typography Packages 190
General Hardware and Accessories 132
Graphics and Design Products 133
Hard-Disk Drives 61, 250
Input Devices 85, 200
Laser Printers 69, 226
Mail-Order Products 90
Memory 73
Modeling and Animation Products 192
Monitors 63, 106
Music and Sound Products 203
Networking and Connectivity Products 206
OCR Products 311
Organizational Tools 219
Output Devices 226
Page-Layout Packages 195
Painting and Image-Editing Packages 196
Performance Enhancers 235
Personal-Info Managers 221
Presentation Products 199
Printing Utilities 304
Programming and Systems Products 237
Project Planners and Organizers 224
Removables 258
Resources 241
Scanners 87, 243
Secondhand Equipment 89
Security Utilities 305
Spelling and Grammar Checkers 312
Spreadsheets and Numerical-Analysis Products 246
Storage Systems 250
Telecommunications Products 276
Utilities 284
Word-Processing Packages 309



page 106



page 200

ZiffNet/Mac is the official on-line connection for *MacUser* magazine. It offers a wealth of information, including a searchable database that contains all the products in The Ultimate Buying Guide as well as the full text of every *MacUser* article. You can get a ZiffNet/Mac sign-up kit by calling 800-666-0330, or you can sign up immediately by following these directions: Call 800-635-6225 (voice) to get your local access number. Set up your telecom software with these settings: 8 bits, 1 stop, and no parity. Dial the local access number. When connected, press Return. At the following prompts, type the responses printed in **bold.** Host Name: **CIS**. User ID: **17000,5200**. Password: **Z*MAC**. Agreement Number: **ULTIMATE**. CompuServe users can just type GO ZMAC at any ! prompt.



A Note to Subscribers

The Ultimate Buying Guide is a bonus issue included in your regular subscription price. It is in addition to your 12 monthly issues.



page 241

Art Director: *Diane Dempsey*
MiniFinders Editor: *Bruce Mewhinney*
Cover Photography: *Fred Stimson*

Bundle of Power

Seven great products that are just right for your PowerBook™ at a price that's just right for your budget.

Nisus Compact™



Award winning word processor in a version designed for the PowerBook. Uses less than 400K, yet packed full of features. Conserves battery, includes battery level, clock and adjustable I-beam. The best alternative to over-featured, RAM hungry word processors.



Easy Alarms™

Easy to use personal calendar and reminder system. Features custom calendars and printing, networking and extensive scripting to run "automated" alarms. Apple Event savvy.



Stuffit SpaceSaver™

Increase the effective size of your hard disk effortlessly without changing your work style. Works transparently on demand or during idle time. From the pioneers of compression on the Mac, makers of Stuffit Deluxe.



Guaranteed Undelete™

The most dependable undelete. Recover deleted files quickly and easily — ***guaranteed!*** Includes TrashMaster with Incinerator for convenient trash management and secure erasure of confidential files.

Shortlist™



The only integrated productivity software for the PowerBook. Powerful contact manager far beyond simple address book software. Project management and automated follow-up. The ideal business tool for the road.



PowerSwap™

Swap batteries without shutting down. Resume work in just seconds. PowerSwap sustains running applications and open documents while you change batteries. This Utilitron exclusive is a great time saver.

PowerBakPak™



Finally, a back pack designed specifically for your PowerBook. Efficient design is compact with room for accessories. Main compartment holds PowerBook; divider for batteries, charger or dock. Plentiful interior pockets hold documents, floppies, accessories and more. Exterior pocket holds batteries, peripherals and cables. Back pack straps keep your hands free; handle and shoulder strap for use as a briefcase. Extra heavy padding and reinforced construction provide the best protection for your PowerBook. Unique design allows use of the PowerBook while in the case and convenient top access to your PowerBook.

A $728 value for only $199
Call Utilitron and order today!
800-428-8766

MACWORLD EXPOSITION
San Francisco Booth 2127
Bring this ad and get a free gift with purchase!

30 day money back guarantee on all software

At last, a PowerBook bundle that provides real value for the mobile Mac — no fluff! We've selected products that will keep you productive — products that enhance your PowerBook — products that you don't want to be without. And now you can afford them. But, time is limited. Order now. Call Utilitron at 800/428-8766 and get everything in this ad for only $199 plus $8 shipping. No risk 30 day money back guarantee on software less $70 for PowerSwap and PowerBakPak.

UTILITRON
incorporated
P.O. Box 811, Allen, TX 75002 • 214/727-2329 (voice/FAX)

For information call
800-428-8766

All product names are trademarks of their respective manufacturers.

CIRCLE 26 ON READER SERVICE CARD.

MacUser

How to Reach Us

The editors of *MacUser* want to hear from you. Send questions, complaints, or compliments to *MacUser*, 950 Tower Lane, 18th Floor, Foster City, CA 94404. Send electronic mail to MCI Mailbox 424-4936 or to ZiffNet/Mac (see below). *MacUser*'s general number is 415-378-5600. We are unable to look up stories from past issues, recommend products, or diagnose your Mac problems by phone.

Information Exchange

If you have a question or problem or a tip to share, write to Help Folder or Tip Sheet, respectively, c/o *MacUser*, at the above address. For more help, you can take advantage of local user groups. Call Apple toll-free at 800-538-9696, ext. 500, for user-group information.

Subscription Inquiries/Change of Address

If you want to subscribe to *MacUser* or have a question regarding a subscription, call 800-627-2247 (U.S. and Canada only) or 303-447-9330 (all other countries) or fax 303-443-5080 (international subscribers only) or write to *MacUser*, P.O. Box 56986, Boulder, CO 80322-6986. New subscriptions and address changes take six to eight weeks. For back issues (subject to availability), send $7 per issue, $8 outside the U.S., to Back Issues Dept., Ziff-Davis Publishing Company, P.O. Box 53131, Boulder, CO 80322. *MacUser* (ISSN 0884-0997) is published monthly, with an extra issue in November, by Ziff-Davis Publishing Company, a division of Ziff Communications Company, One Park Avenue, New York, NY 10016. Editorial Offices: 950 Tower Lane, 18th Floor, Foster City, CA 94404. Telephone: 415-378-5600. U.S. subscription rates are $27 for 12 issues, $45 for 24 issues, and $62 for 36 issues. Additional postage for Canada: Add $16 per year to the U.S. rates for surface mail. Single-copy price is $2.95 (Canada, $3.95). Canadian GST registration #R-123669673. POSTMASTER: Send address changes to *MacUser*, P.O. Box 56986, Boulder, CO 80322-6986. Second-class postage paid at New York, NY 10016, and at other mailing offices.

ZiffNet/Mac: *MacUser* On-Line

Follow these steps to join ZiffNet/Mac: Call 800-635-6225 (voice) to find your local access number. Set up your telecom software with these settings: 8 bits, 1 stop, and no parity. Dial the local access number. When connected, press Return. At the following prompts, type in the responses printed in **bold**: Host Name: **CIS**. User ID: **177000,5200**. Password: **Z*MAC**. Agreement Number: **Z12D9014**. CompuServe users can just type GO ZMAC at any ! prompt.

Complaints About Advertisers

MacUser's editors are not responsible for the content of the advertisements in the magazine. However, if you bought a product advertised in *MacUser*, are dissatisfied, and can't resolve the problem, write to Doris Ashman, Ad Department, *MacUser*, 950 Tower Lane, 18th Floor, Foster City, CA 94404. Include copies of relevant correspondence.

Permissions and Reprints

Material in this publication may not be reproduced in any form without permission. Send permission requests to Chantal Lavelanet and reprint requests to Claudia Crichlow, Ziff-Davis Publishing Company, One Park Avenue, New York, NY 10016.

Writing for *MacUser*

If you have an idea for an article you'd like to write, we'd like to hear about it. Send a query letter with samples of your writing (published, if possible) to James S. Bradbury, *MacUser*, 950 Tower Lane, 18th Floor, Foster City, CA 94404. Allow four to six weeks for a reply.

Product Announcements and Updates

Please send press releases to Michele Hasson, *MacUser*, 950 Tower Lane, 18th Floor, Foster City, CA 94404.

In Memory of
John J. Anderson
1956 – 1989
and
Derek Van Alstyne
1967 – 1989

The ins and outs of speeding up your SE.



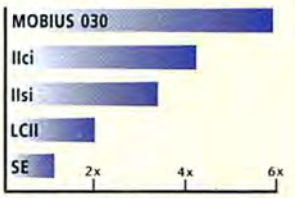




in. **out.**

THE MOBIUS 030 DISPLAY SYSTEM is the simplest, most reliable, and most economical way to pump major new life into your trusty Mac SE: a combination 25 MHz 030 accelerator and video card, plus a top-rated Mobius One or Two Page Display. All starting at just $899, including tilt/swivel base, cabling, software, and a complete installation kit (which, by the way, is a snap). It's no wonder MacWeek called it **"THE BEST UPGRADE VALUE WE'VE SEEN YET FOR THE SE."** The Mobius 030 Display System increases the speed of your SE sixfold, making it just as fast as the IIci, and for one third the cost of buying one. That means blazing recalcs on your spreadsheets, and speedy redraws on your page layouts. Your entire document will always appear razor-sharp and rock-solid on the **"THE MOST VISUALLY APPEALING"** display, according to MacWorld. The Mobius 030 Display System is a complete solution that not only comes with your choice of monitor, but can be expanded for even greater performance. Want more speed? Just add our math coprecessor. More memory? There's room on the card for up to 16 MB of memory*. At Mobius, we're dedicated to providing the best service and support in the industry. So give us a call now to place an order or to get more information. We'll give you all the ins and outs.

SPEED COMPARISON



The Mobius 030 Accelerator increases the speed of a Mac SE six times.
Source: MacWorld 6/92

SERVICE & SUPPORT

Unlimited toll-free technical support
Free Warranty Express Service
Two year warranty
30-day money-back guarantee

ORDER DIRECT

Mon-Fri. 8am-5pm PST
Major credit cards accepted.
Corporate, Gov't, and Educational POs accepted subject to approval.

800-800-4334



$399
MOBIUS 030 SE ACCELERATOR

*25MHz 030 accelerator/video card supports one & two page monitors. Includes installation kit & software. 16 MB virtual memory option additional $200. ***



$699
MOBIUS TWO PAGE DISPLAY

826x1024 pixels, 75 dpi, 75 Hz refresh, 80,000 hrs. MTBF

$499
MOBIUS ONE PAGE DISPLAY

640x870 pixels, 78 dpi, 75 Hz refresh, low-emissions design.

MOBIUS

* With 16 MB virtual memory option.**Includes PMMU and Connectix™ Virtual 3.0™. Also available for the Macintosh Classic, add $100. In Canada call (416) 886-2326. ©1992 Mobius Technologies, Inc. Mobius 030 Display System is a trademark of Mobius Technologies, Inc. All other trademarks are property of their respective holders. Mobius Technologies, Inc., 5835 Doyle Street, Emeryville, CA 94608, Tel (510) 654-0556, Fax (510) 654-2834. Pricing subject to change without notice.

CIRCLE 174 ON READER SERVICE CARD.

If you think this is all your LaserWriter can do,



you haven't explored all the possiblilities!



TowerFeed shows what your LaserWriter can really do!



Rutishauser's TowerFeed reliably supplies the LaserWriter II series with a variety of paper bonds & sizes, from remote workstations.

TowerFeed is available in three configurations, two desk top models and a stand alone model on rollers. TowerFeed sits directly below the printer, freeing up valuable office space.

Each drawer holds a full ream (20 lb. paper) of either US letter or US legal paper. Paper lies flat and is protected on all sides.

Printer productivity is significantly increased by reducing the need for constant interruptions to change cassettes and refill paper.

Call now for additional information:

800-676 DYNA

Macworld Expo Booth 3888

Rutishauser

Imported by: DYNABIT USA, Inc.
324 S. Hyde Park Ave • Tampa, FL 33606
800/676 3962 • Fax: 813/254 7891

LaserWriter is a registered trademark of Apple Computer Inc.

CIRCLE 14 ON READER SERVICE CARD.

MacUser

Publisher
Janet Ryan

Editor-in-Chief
Jon Zilber

Associate Publisher
Jonathan A. Lane

Editorial
Editor **James S. Bradbury**
Managing Editor **Nancy Groth**
Technical Director **Henry Bortman**
Executive Editor **Rik Myslewski**
Senior Editors **Russell Ito, Pamela Pfiffner, Victoria von Biel**
Technical Editor **John Rizzo**
Associate Managing Editor **Claire Hamilton**
Chief Copy Editor **Eva Langfeldt**
Associate Editors **Mark Frost, Susan Janus, Stefan Lipson, Alfred Melo, Bruce Mewhinney, Karen J. Ohlson, Elisa M. Welch**
Senior Copy Editors **Rhoda Simmons, Leslie Steere**
Assistant Editors **Darryl Chan, Michele Hasson**
Editorial Assistant **Nancy Peterson**
Administrative Assistant **Amanda Michael**
Contributing Editors **David Biedny, Don Crabb, Bruce Fraser, Andy Ihnatko, Ted Landau, Bob LeVitus, Michael Swaine, Kurt VanderSluis, Gregory Wasson**
Contributing Anti-Editor **John C. Dvorak**
Assistant to the Editor-in-Chief **Teresa Campbell-Molina**

MacUser Labs
MacUser Labs Director **Jeffrey S. Pittelkau**
Project Leaders **Mark Bieler, Tony A. Bojorquez, Jeffrey K. Milstead**
Lab Technicians **Roman Victor Loyola, Sean Safreed**
Lab Administrator **Anthony Stoltz**
Network Administrator **Stephan Somogyi**

Design
Art & Design Director **Lisa Orsini**
Associate Art Director **Diane Dempsey**
Associate Technical Art Director **Peter Alan Gould**
Art Production Manager **Jan McKenzie Rogers**
Technical Illustrators **K. Daniel Clark, Mark W. Sweeney**

Advertising/Sales
Advertising Coordinator **Elizabeth McGinnis**

Production
Production Director **Carlos Lugo**
Production Manager **Brenda Falco**
Assistant Production Manager **Monique Risso**

Marketing
Director of Marketing **Jeff Bruce**
Marketing Manager **Laurel Skillman**
Events Manager **Stacy Hollingsworth**
Marketing Coordinator **Renee Weems**
Marketing Administrator **Cristi Leer**

Operations
Business Manager **Cynthia Mason**
Assistant to the Publisher **Susan Logan**
Assistant to the Associate Publisher **Marci Yamaguchi**
Assistant Account Representative **Doris Ashman**

On-Line: ZiffNet/Mac
Executive Editor, On-Line Services **Ben Templin**
Assistant Project Leader **Shel Syed**
Associate Editor **Mark Simmons**

The Audit Bureau BPA

Ziff-Davis Publishing Company
Chairman and CEO **Eric Hippeau**
President **J. Scott Briggs**
Executive Vice President **Ronni Sonnenberg**
Executive Vice President **Mike Edelhart**
Group Vice President **J. Samuel Huey**
Group Vice President, Direct Publications **Jim Stafford**
Senior Vice President, Marketing **Paul H. Chook**
Senior Vice President **Rachel Greenfield**
Senior Vice President, International Development **J.B. Holston**
Vice President, Operations **Baird Davis**
Vice President, Controller **Howard Sckolnik**
Vice President, Creative Services **Herbert Stern**
Vice President, Research **Marian O. White**
Vice President, Circulation **Bert Lacy**
Vice President, Circulation Services **James F. Ramaley**
Vice President, Marketing Services **Ann Pollak Adelman**
Vice President, Production **Roger Herrmann**
Vice President, Europe **Frank Kelcz**
Vice President, Asia-Pacific **Alan Power**
Vice President, Technology **William B. Machrone**
Vice President, Classified Advertising **Paul Stafford**
Vice President **William L. Phillips**
Vice President **Claude P. Sheer**
Vice President and General Manager **Louis B. Dotti, Jr.**
Vice President, Human Resources **Rayna Brown**
Executive Director/ Information Systems **John Helliwell**
National Managing Director/ Magazine Networks **Joseph Gillespie**
Licensing Director **Jean Lamensdorf**
Director of Planning **Gary A. Gustafson**
Production Director **Walter J. Terlecki**
Director of Sales Training **Dan Leonetti**
Director of Corporate Marketing **Susan Delman**
Editorial Director **Lewis D'Vorkin**
Director of Ziff-Davis Labs **Beth Springer**
Director of Public Relations **Gregory M. Jarboe**
Director, Direct Marketing Programs **Alicia Marie Ivans**
Business Manager/Publishing Operations **Tom McGrade**
Assistant to the Chairman **James Reilly**

Ziff Communications Company
Chairman **William B. Ziff, Jr.**
President **Philip B. Korsant**
Executive Vice President **E.C. "Mick" Prokopis**
Executive Vice President **Philip Sine**
Senior Vice President **Hugh Tietjen**
Vice President, General Counsel and Secretary **J. Malcolm Morris**
Vice President, Controller and Treasurer **Patrick J. Burke, Jr.**
Vice President, Human Resources **Frederick K. Staudmyer**
Vice President **Steven C. Feinman**
Vice President **Seth Alpert**
Vice President, Business Manager **T. L. Thompson**
Vice President, Chief Information Officer **Thor Olson**
Vice President, Electronic Editorial Director **Michael Kolowich**
Vice President of Market Development **Robert G. Brown**

Entire contents © 1992 Ziff-Davis Publishing Company, a division of Ziff Communications Company. All rights reserved; reproduction in whole or in part without permission is prohibited. *MacUser* is a registered trademark of Ziff Communications Company. *MacUser* is an independent journal, not affiliated in any way with Apple Computer, Inc.



Illustration created in MacDraw Pro 1.5

Bring your graphics up to speed.

NEW Get with it. MacDraw® Pro 1.5 is one of the fastest drawing programs ever. So now you can make faster work of text, scrolling, rotation, gradients, printing, and much more.

But speed isn't the whole story behind this updated version of the Macintosh best-seller. It's what you can do with all this performance.

MacDraw Pro 1.5 takes full advantage of System 7. Like QuickTime, Publish and Subscribe, even Apple events.

It also uses familiar word processing style rulers for greater control of how text looks on a page.

And you can import PICT, PICT2, TIFF, EPSF and all MacDraw files, you name it.

Yet for all these features, MacDraw Pro 1.5 remains as accessible as ever.

Call 1-800-544-8554, ext. 45, and trade up. If you own MacDraw Pro it's just $15, or $99 with any earlier version of MacDraw.

And do it soon. Because when there's a program this fast, you don't want to get left behind.

CLARIS

Simply powerful software:

CLARIS



MacDraw Pro

Powerful graphics standard for the Macintosh.

© 1992 Claris Corporation. All rights reserved. In Canada call 1-800-668-8948, ext. 48. Claris and MacDraw are registered trademarks and Simply powerful software is a trademark of Claris Corporation. All other product names are trademarks or registered trademarks of their respective owners.

Introducing PowerPath and LocalPa

Software and connectors that easily attach PowerBooks to Ethernet or Token Ring.

Software that conn up to 9 LocalTalk dev to Ethernet or Token Ring



Shop the Ethernet supermarket.

Satisfy all your Ethernet needs with our EtherMac and Ether10-T products.

New Forwarding Software		*MacII (NuBus)*	
PowerPath	$149	Thick+Thin	$249
LocalPath	$199	Thick+10T	$249
Hubs		3-way	$329
StarController EN intelligent hub	$1595	*Mac LC*	
Ether10-T Starlet 9-port mini-hub	$399	Thin	$249
Transceivers		Thin+FPU	$399
Ether10-T AUI	$149	10T	$249
Ether10-T AAUI	$149	10T+FPU	$399
EtherMac Cards		Thin+10T	$329
Mac SE		Thin+10T+FPU	$479
3-way	$329	*SE/30 & IIsi*	
		Thick+Thin	$299
		Thick+Thin+FPU	$449
		Thick+10T	$299
		Thick+10T+FPU	$449
		3-way	$379
		3-way+FPU	$529

Prices are suggested retail. 64K cards available.

One-stop shopping. Isn't it great?

Now there's only one place you need to go for affordable Ethernet. Farallon.

We have everything you need for small workgroups to larger networks, including EtherMac™ cards, Ether10-T™ transceivers, a new 9-port Ether10-T Starlet™ and an intelligent StarController® EN hub. All at bargain prices.

Farallon has a variety of EtherMac cards for any Mac CPU. And any media. They're based on National Semiconductor's proven Ethernet architectures, and all are compatible with System 7 and the Apple Ethernet driver.*

For workgroups, the Starlet easily connects up to nine Ethernet devices and features a series of diagnostic LEDs.

A step up, the StarController EN intelligent hub helps you build reliable larger networks with integrated management. It also mounts in our new Concentrator, preserving your investment as you grow.

Farallon

Power to the network.™

Need more information? Call for our free guide, "Building a Macintosh Network." **1-800-998-7761.**

National Semiconductor

©1992 Farallon Computing, Inc. All rights reserved. *The Mac SE cannot use Apple's standard System 7 Ethernet driver. StarController and the Farallon logo design are registered trademarks, and EtherMac, Starlet, Ether10-T and "Power to the network." are trademarks of Farallon Computing, Inc. For customer service, call (510) 596-9000. Or contact us on America Online,® AppleLink,® or MCI Mail® ID: Farallon. CompuServe® ID: 75410, 2702. Internet ID farallon@farallon.com.

CIRCLE 178 ON READER SERVICE CARD.

Jon Zilber

Before You Spend a Cent . . .



Face it: Buying a Mac ain't so easy anymore. Which Mac model should you buy? How do you choose the right hardware peripherals for your needs? What software can do the job you need done? The answers used to be obvious. Today they're complex enough to fill a book — so we wrote it: *MacUser*'s ultimate buying guide.

It used to be easy: You bought the most powerful Mac you could afford, stuck with Apple-labeled peripherals, and got along just fine with the software that came bundled with your Mac.

But today's universe of Mac products is mind-boggling. *MacUser*'s first-ever ultimate buying guide to Mac hardware and software is designed to help new Mac users get an instant education and to provide Mac veterans with a complete reference guide to virtually every type of Mac product — from the specs on all 19 current Mac models to concise reviews of 1,500 hardware and software products.

In this guide, you'll find an overview of the entire Mac family, including the latest PowerBook and desktop models. *MacUser* has also developed an expert-system software tool to help you figure out which Mac model best suits your particular needs. (See the table of contents for information on how you can get this software from our online service, ZiffNet/Mac.)

Next, check out our collection of Shopping Lists for some one-minute primers on what to look for in all the major categories of hardware peripherals and add-ons.

Finally, you'll be ready to consult the MiniFinders section, a database of 1,500 reviews of specific products. Each MiniFinders entry is based on thorough hands-on evaluations, and each contains the date of the most recent issue of *MacUser* in which you can find more details. (See the masthead for information on obtaining back issues or accessing them on-line.)

If the product's review is more than a few months old, a newer version of the product may be available — or one of its competitors may have leapfrogged ahead. So stay tuned: As the market continues to change, you'll find the ongoing information you need each month in *MacUser*.



FILE SYNCHRONIZATION FOR THE POWERBOOK!

Are you:

- Having trouble keeping track of the latest version of your files when you move them back and forth between your PowerBook™ and your Desktop Mac?
- Modifying files on your home Mac and need to have them updated on the office Mac?
- Adding to a database when on the road, while back at the office, changes may have been made to the same database, and there is no simple way to determine if the file has changed on both computers?

If you are experiencing any of these problems, you need PowerMerge. PowerMerge provides you with a simple and automatic way to keep track of the latest version of your files if you use more than one Macintosh® computer!

- Precise Control of which files, folders or disks will be synchronized
- Drag & Drop ease of use
- Visually review all updates before they occur
- Inclusion or Exclusion of individual disks, folders, files, creators or kinds
- Bidirectional Updates
- Disk Locking allows single direction updating
- Conflict Notification if changes have been made to a file on both computers since updating.
- Unlimited setups can be created and saved for future synchronization
- A History Log provides you with a record of every file that was updated
- Works between any two Macs or disks via network or removable media

Order Now from resellers everywhere including:

MacWarehouse
1(800) 255-6227

LEADER TECHNOLOGIES
Call: (800) 922-1787

Fax (714) 757-1777
4590 MacArthur Blvd., Suite 550
Newport Beach, CA 92660

CIRCLE 44 ON READER SERVICE CARD.

Macintosh Gives You The Power To Be Your Best.

Just As Soon As You Dig Through 300 Folders, Restart Ten Times, And Figure Out What Palatino Looks Like.

You know all those things you wish your Mac did? Like let you get at files and applications immediately instead of digging through umpteen different folders. Or load new extensions without making your entire system blow up. Well, contrary to popular belief, it can. With Now Utilities 4.0, an updated version of the software collection awarded best utility last year by the editors of both MacWeek and MacUser. Its seven components are designed, tested and guaranteed to work together. And it simplifies using your Mac in so many ways, it'd be downright impossible to mention them all in one ad. So here's the Reader's Digest Condensed Version.

| NowMenus | is the ultimate file and application launching tool. It creates submenus up to five levels deep for anything in your Apple Menu. It lets you launch files



AND APPLICATIONS INSTANTLY. IT LETS YOU ASSIGN HOT KEYS TO MENU ITEMS ON THE FLY. IT LETS YOU GROUP APPLICATIONS, FILES AND FOLDERS INTO WORKSETS. IT EVEN LETS YOU CHANGE THE FONT AND ORDER OF ITS MENU ITEMS. IS THERE ANYTHING IT DOESN'T LET YOU DO? YES, BUT GIVE US A BREAK. THE AD JUST STARTED.

| SUPER BOOMERANG | SAVES YOU TIME AND HASSLES BY KEEPING TRACK OF YOUR MOST FREQUENTLY USED FILES AND FOLDERS. THEN IT PRESENTS THEM TO YOU IN THE 'OPEN' AND 'SAVE' DIALOGS OF EVERY APPLICATION. AND IT FINDS YOUR LOST FILES WITH JUST A PARTIAL NAME OR A SHRED OF CONTENT TO GO ON – EVEN IF THEY'VE BEEN COMPRESSED.

| NOWSAVE | AUTOMATICALLY SAVES YOUR WORK AFTER A SPECIFIED NUMBER OF MINUTES, KEYSTROKES OR MOUSE CLICKS. AND IF YOU WANT, IT WILL RECORD EVERY KEYSTROKE IN A SPECIAL BACK-UP FILE, JUST AS YOU TYPED IT. SO EVEN IF YOUR SYSTEM CRASHES, YOUR WORK IS SAVED. AS IS THE HAIR YOU WOULD HAVE TORN OUT.

| WYSIWYG MENUS | MEANS WHAT YOU SEE IS WHAT YOU GET. WILL IT LET YOU SEE FONT NAMES IN THEIR ACTUAL TYPEFACES? YES. WILL IT LET YOU CHANGE THE ORDER, SIZE AND COLOR OF FONTS IN THEIR MENUS? OF COURSE. WILL IT LET YOU GROUP CERTAIN FONTS WITH CERTAIN APPLICATIONS AND ASSIGN THEM HOT KEYS? ABSOLUTELY. WILL IT GROUP FONT FAMILIES TOGETHER SO YOU DON'T HAVE TO SCROLL ALL OVER KINGDOM COME TO FIND THEM? YOU BETCHA.

| STARTUP MANAGER | CONTROLS THE LOADING OF EXTENSIONS AND CONTROL PANELS. IT HELPS PREVENT CRASHES. IT DISABLES EXTENSIONS THAT DO CRASH. IT EVEN LINKS TOGETHER EXTENSIONS THAT REQUIRE EACH OTHER AND KEEPS DISAGREEABLE EXTENSIONS APART SO THEY WON'T BLOODY EACH OTHERS' PROVERBIAL NOSES.

| NOW SCRAPBOOK | GREW OUT OF THE 5-MOUSE-RATED PICTUREBOOK+. IT HELPS YOU ORGANIZE GRAPHICS, TEXT, SOUNDS AND QUICKTIME MOVIES AND STORES THEM IN MULTIPLE CATALOGS THAT CAN ALL BE OPEN SIMULTANEOUSLY. IT ALSO SHOWS YOU 'THUMBNAIL' VIEWS AND LETS YOU SORT, ZOOM, SCALE, RESIZE AND CROP IMAGES JUST LIKE A REAL, LIVE ART DIRECTOR. EVEN IF YOU DON'T HAVE A PONYTAIL.



| NOW PROFILE | IS NOT GLAMOROUS. IT'S NOT EXCITING. BUT IT DOES PROVIDE A DETAILED ANALYSIS OF YOUR SYSTEM, ITS CONFIGURATION, THE WHOLE BALL OF WAX. THAT WAY, IF YOU EVER RUN INTO TROUBLE, ALL THE INFO IS RIGHT THERE. SEXY, NO. SMART, YES.

SO THERE IT IS. NOW UTILITIES 4.0. OR AT LEAST AS MUCH OF IT AS WE CAN FIT IN ONE AD. TO GET THE REST OF THE DETAILS, CALL US AT 1-800-237-3611. OR TALK TO A DEALER. OH, AND JUST IN CASE YOU'RE STILL WONDERING, PALATINO LOOKS LIKE THIS.

Now Software

©NOW SOFTWARE, INC. 319 SW WASHINGTON, 11TH FLOOR, PORTLAND, OR 97204. FAX: 503-274-0670. PHONE: 503-274-2800. FOR UPGRADES CALL 800-374-4750 OR FAX 716-873-0906.

CIRCLE 170 ON READER SERVICE CARD.

How to Buy *the Right Mac*

With more than 30 models of new and old Macs to choose from, today's buyer needs the right facts to make the right choice. Here's (almost) everything you need to buy a Mac (you still have to come up with the cash yourself).

In the beginning, one young rebel flung her sledgehammer at IBM's dominance and announced a single computer with a single name: Macintosh. Apple's mythic ad not only distracted 1984's Super Bowl viewers from their Bud and Pringles but it also kicked off a nine-year spiral of development and diversity.

Thirty-two models have followed that original Macintosh. Worldwide, eight million Macs now compete with ten times as many DOS-based machines. Despite the advent of Microsoft Windows, the superiority of the Mac's interface remains clear to all but the most ardent DOSophiles. For those who are searching for the perfect personal computer, the question isn't, Should I buy a Mac or a PC clone? but Which Mac should I buy?

BY RIK MYSLEWSKI



PHOTOGRAPHY: ROSEMARY WILTON


Classic II
$1,079
Mac IIci
$2,719
Macintosh IIci

A Brave New World

Fortunately, you have more choices, and are offered much better values, today than at any time since the Mac first appeared. What was once a single line of Macs has blossomed into six distinct series: low-cost and consumer Macs for entry-level users and less demanding applications, notebook and dockable Macs for users on the move, modular Macs for business and DTP users, and Motorola 68040-based Quadra powerhouses for users who demand the pinnacle of Mac performance. Choosing a Mac is no longer a simple matter of calling your accountant and buying as much power as your budget allows: Price-versus-performance is no longer the sole shopping criterion, because several models now list for roughly the same price.

Sifting through the growing Mac family isn't as daunting as it might sound. Your first step is to write down what applications you plan to run, including those you may add in the foreseeable future. Then, as you continue reading through this article, you can see what hardware is best for these applications. Once you know what you need from your Mac, you'll have to decide whether to get everything from Apple or whether to buy the minimum configuration and spruce it up with third-party add-ins, upgrades, and peripherals.

The Basics

Today's choices demand an understanding of today's Macs and of the most basic component of any Mac, its *microprocessor*, the silicon chip that manages the whole show. Apple Computer uses microprocessors from the 68000 series, manufactured by Motorola. IBM PCs and their clones use microprocessors from another giant of the silicon world, Intel. This use of different microprocessors is a core reason for the compatibility challenges between the DOS and the Mac clans.

Mac microprocessors come in three distinct, although related, types (see Figure 2). Generally speaking, the farther up the chip is on the evolutionary scale, the higher its performance. The original 68000 is now used only in the Classic and the PowerBook 100, but it appeared in all Macs released before the Mac II, including the popular SE. Apple debuted the 68030 in 1988, and it has now become the flagship of the Mac line: No less than the Classic II, LC II, IIsi, IIvx, IIci, and *all* the current Performas and PowerBooks use this chip. Finally, the Quadra 700 and 950 use the 68040, a true thoroughbred chip, with more than 17 times the transistors and 10 times the raw horsepower — measured in *MIPs*, or millions of instructions per second — of the original 68000. (The Mac II was the first Mac to use a fourth Motorola microprocessor, the now-extinct 68020; the last Mac to feature the 68020 was the original LC.)

There are dozens of important differences among these microprocessors, but none causes more confusion than their *clock speed* — the number of times per second the chip cycles from process to process. Clock speed is measured in *megahertz* (millions of cycles per second), often abbreviated as MHz. But don't jump to the conclusion that clock speed equals the number of tasks, or useful duties, a chip can accomplish per second. Most tasks require multiple clock cycles, but the more powerful the chip, the more it can do per cycle — one reason



Figure 1: The first Macintosh (left) had a paltry 128K of memory and no SCSI port for attaching a hard drive. Eight years later, the Quadra (right) can accommodate multiple high-speed storage devices and more than 2,000 times the memory.

Mac 2000

What will tomorrow's Macs be like? Well, for one thing, they won't be Macs. Apple is hard at work on two futuristic efforts that will turn your Mac into a museum piece by the turn of the century. Personal digital assistants (PDAs), based on Apple's Newton technology, will revolutionize mobile computing (see "Newton's World," August '92, page 45). RISC-based Macs running a new and highly efficient operating system will transform desktop computing into a new era of limitless communication, seamless multimedia, and raw computational power (see "PowerPC: Where No Mac Has Gone Before," September '92, page 142).

Not that there won't be some familiar aspects to your new Mac 2000. You'll still have icons on your computer screen, for those occasions when you insist on manipulating data manually. But voice commands will be more common. For graphics work, you'll have a pressure-sensitive pen.

Networks will be pervasive, but wires will be antiques. Future Macs will communicate by radio waves, so you'll be connected wherever you go. Your computer will also function as a telephone, fax machine, pager, mailbox, and interactive cable-ready television.

You won't buy applications for your Mac either. You'll buy functional modules. You'll be able to assemble them as you do Lego building blocks, to perform precisely the tasks you require. You will train them by performing a task once and telling your Mac to remember how you did it.

You won't have to worry about document formats either. Format translators, when necessary, will automatically ensure that the information you need will be presented properly.

"Out of memory" messages will be a thing of the past. Base configurations will contain 128 megabytes of RAM. For additional storage, you'll use removable solid-state RAM cartridges, the size of a credit card, that will hold as much as a gigabyte of data.

You'll be able to use your Mac at your desk if you need to, but you'll be more likely to carry it in your shirt pocket. Some models will hang on the wall of your conference room, where the white board lives today.

Your computer display will be a full-color flat-panel LCD with a resolution of 150 dpi (dots per inch) or greater. Images will have the clarity of high-definition TV. Printing will become a special-purpose task; most information will be transferred electronically.

And price? You'll be able to get a device with this "basic" capability for less than $1,000, allowing, of course, for inflation adjustments — but you'll have to pay a bit more for the Holodeck option.

— Henry Bortman



Apple's pen-based Newton technology is scheduled to first appear in early 1993 in this hand-held personal digital assistant (PDA).

why a IIvx with a 32-megahertz 68030 is left in the dust by a Quadra 700 with a 25-megahertz 68040. A 16-megahertz 68000 certainly performs better than an 8-megahertz 68000, but don't expect it to keep up with a 16-megahertz 68030.

Even though the original Classic's 68000 is beginning to show its age, don't count it out. It's more than adequate for most day-to-day computing duties, such as word-processing, telecommunications, and simple spreadsheet work. When you're typing, for example, your Mac's microprocessor is simply spinning its wheels, waiting for each keystroke. Remember, a microprocessor's world is measured in millions of cycles per second, not words per minute, as is a typist's. Except for its slow scrolling, a Mac Classic is as effective a word-processing platform as a 68040-based Quadra — if you limit your use of special word-processing features.

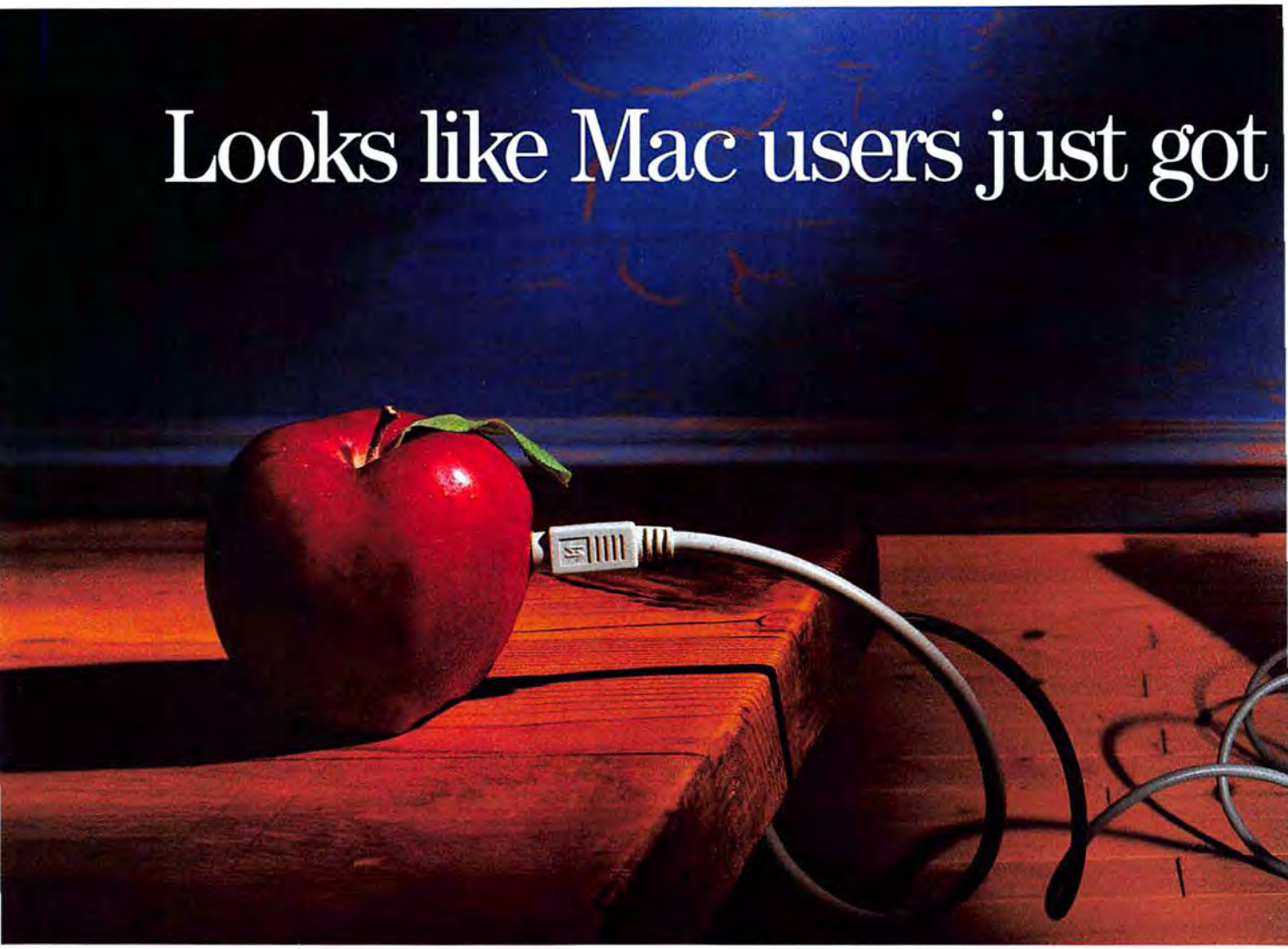
Whenever your word-processing application needs to redefine how your page will be formatted — in Microsoft Word's Page View or Tables mode, for example — it's up to your microprocessor to get the job done. In such cases, a faster microprocessor is a big help. If you often use your word processor's more complex functions or if page layout is your game, you'll save yourself a great deal of time and aggravation by choosing a 68030-based Mac.

The same advice holds true for spreadsheet and database-management applications: If you use only simple, nontaxing functions on small files — and let's face it, we're not all power users, nor do we need to be — a low-powered Macintosh will suit you just fine. But if you build complex financial models or if your relational database contains thousands of records, a 68000-based Classic or a low-powered 68030-based machine such as an LC II or Classic II will soon turn you either suicidal or homicidal. Do yourself — and your coworkers — a favor: Buy a faster Mac for your spreadsheet work and a faster hard drive for your database needs. And if you're into severely processor-intensive tasks such as 3-D color modeling and rendering, engineering, or serious scientific number crunching or if your software-development business requires you to frequently perform long compiles, by all means, take out a second mortgage and buy yourself a Quadra with a ton of RAM.

Remember also that you're not necessarily stuck with the microprocessor that's in the Mac you buy. Apple offers several upgrade options: One especially attractive route is swapping an outdated IIcx or IIci motherboard for a Quadra 700 motherboard; you can quadruple your Mac's overall performance for a mere $3,499.

Also, third-party manufacturers

Looks like Mac users just got



The new generation HP LaserJet 4M printer.



True 600 dpi creates rich, full-dimensional text and graphics.

Smoother curves, no jagged edges, thanks to HP's exclusive Resolution Enhancement technology.

Microfine toner makes 600 dpi output look even sharper.

35 PostScript Type 1 typefaces for Mac and PC PostScript users, and 35 Intellifont and 10 TrueType typefaces for PC users produce a broad range of document styles.

LaserJet

4M

4M 4M 4M 4M

The HP LaserJet 4M is the one for all. Macintosh and PCs alike. This new generation provides superior output with 600 dpi, Resolution Enhancement technology and microfine toner. 6MB built-in memory means that PostScript files and full-page graphics print out crisp, clear and fast.

At last. Hewlett-Packard introduces a laser printer built specifically for the Mac from the ground up—the new LaserJet 4M. A laser printer for Mac users with everything you expect. And, more importantly, everything you need. From built-in PostScript Level 2 software from Adobe and 6 MB of memory, to standard LocalTalk and optional EtherTalk. Features which make certain this new generation in laser printing is ready-made just for you.

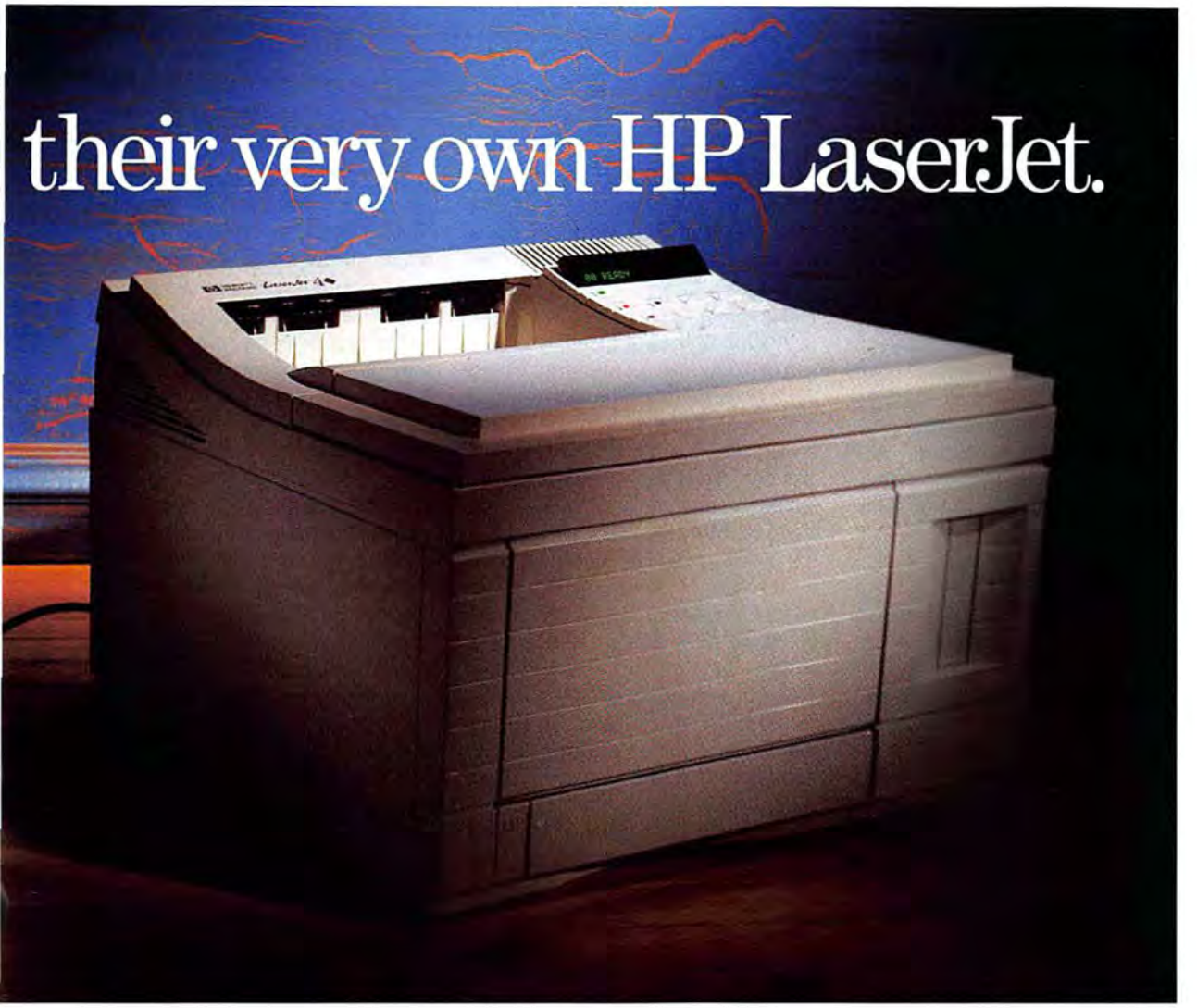


Faster printing of complex documents.

The finest print quality in its class. In addition to complete Macintosh compatibility, the LaserJet 4M printer also delivers the finest print quality of any 600 dpi machine available—thanks to

© 1992 Hewlett-Packard Company PE12276 *Suggested U.S. list price.

their very own HP LaserJet.



HP's microfine toner, Resolution Enhancement technology, and an advanced engine expressly engineered for 600 x 600 dpi.

New generation features mean you will lose no time getting your work onto the page. A new RISC processor and 6 MB of standard memory accelerate formatting and I/O speeds, so complex PostScript language and graphics files are rendered faster and more clearly than ever before.



6 MB of memory built in.

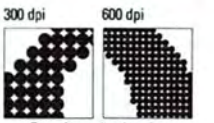
Greater flexibility.
But this wouldn't be an HP-caliber breakthrough if the innovations weren't across the board. That's why, even though the new generation LaserJet 4M printer is built for the Macintosh, it will perform for DOS and Windows users as well... automatically. Automatic language switching (between PCL 5 and PostScript) and three hot I/O ports (serial, parallel, and LocalTalk) make sure users are able to share the printer simultaneously. Without waiting.

Also, because of the LaserJet 4M printer's two integrated paper trays (total capacity 350 sheets) and optional 500-sheet tray and power envelope feeder, you will save time, avoid paper-handling hassles, and gain flexibility.

HP quality and reliability.
The new generation LaserJet 4M printer lets you enjoy the one particular no other Macintosh laser printer can offer—the renowned quality and reliability which comes with owning an HP peripheral. Not to mention our outstanding customer support,



Increased paper handling.



Four times the dots for better resolution.

where information about how to get the most from your printer is never more than a phone call away.

Surprisingly affordable.
Perhaps the most remarkable attribute of the new LaserJet 4M printer is the price—$2,999.*
A breakthrough in its own right. So call **1-800-LASERJET (1-800-527-3753), Ext. 7135** to receive a print sample** and comparison disk to see the quality for yourself.† Or visit your nearest authorized HP dealer and see the printer built to add some polish to your Apple.

HEWLETT PACKARD

**To have a LaserJet 4M printer data sheet sent immediately via fax machine, call 1-800-964-1667 from your touch-tone phone. †In Canada call 1-800-387-3867, Ext. 7135. Adobe and PostScript are trademarks of Adobe Systems Incorporated which may be registered in certain jurisdictions.

offer a wide variety of *accelerators* — cards that slip into a Mac's *PDS* (processor-direct slot) or NuBus slot or that clip directly over the existing microprocessor in slotless Macs. The Performa 600 and 600 CD have a slot expressly dedicated for future acceleration, called, appropriately enough, the Accelerator Slot. Most accelerators replace the Mac's existing microprocessor with a faster version, thus adding performance without requiring you to replace the entire Mac, drives and all.

Memory Matters

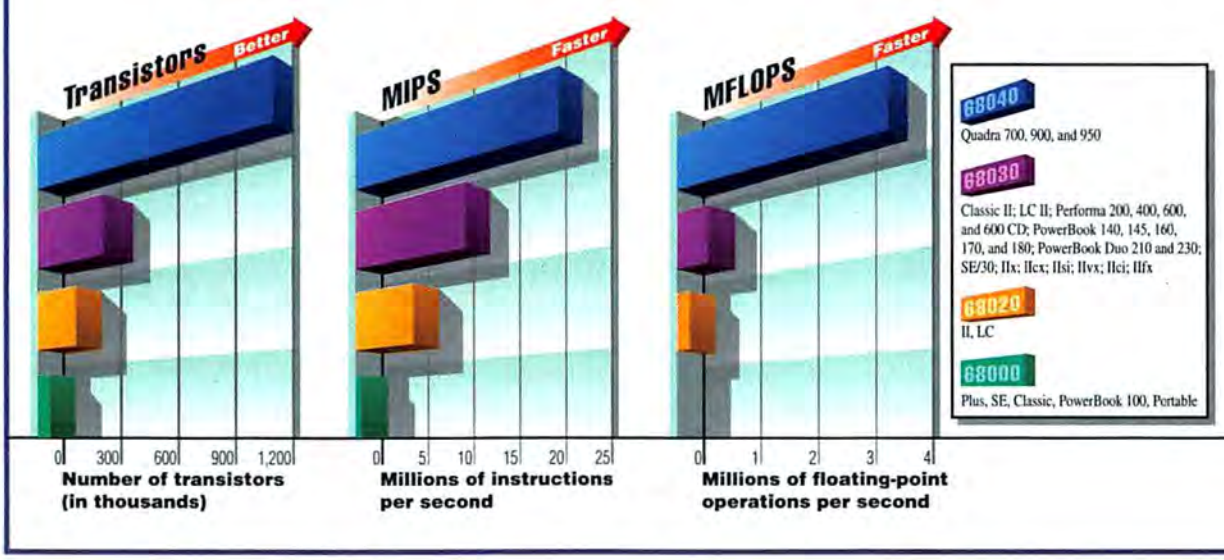
Speed is not the only reason to step up to a newer microprocessor. The 68030 and 68040 are not just more powerful than their predecessors; they also contain the *MMU* (memory-management unit) necessary to use System 7's virtual-memory feature, which lets you designate a portion of your hard disk as *RAM* (random-access memory, the microprocessor's work space). If you have an old Mac II, you can pair a 68851 *PMMU* (paged-memory-management unit) chip with the Mac II's 68020 microprocessor to gain the same advantage. If you own an original LC (also a 68020-based Mac), however, you're out of luck; the LC has no socket for a 68851. If you have a 68000-based Mac, you're also locked out of virtual memory; the 68000 has no MMU and supports no PMMU chip.

But remember that Apple's implementation of virtual memory is slow — very slow. Because of virtual memory's performance limitations, buy as much real RAM as you can. Fortunately, RAM is cheap these days — around $30 for a 1-megabyte SIMM (single in-line memory module, the standard form for Mac RAM), $100 for a 4-megabyte SIMM, and $500 for a 16-megabyte SIMM. But before visions of unlimited RAM overwhelm you, remember that each Mac has a built-in limit and that RAM must be added in groups of SIMMs — or, in the case of PowerBooks, on special *daughtercards* containing costly pseudostatic RAM (see the "RAM Rules" sidebar).

Also, to access more than 16 megabytes of RAM, your Mac must be *32-bit clean,* and only the Mac IIci and later models come with 32-bit-clean ROMs. There is a fix, however. A system extension called MODE32 removes the 16-megabyte barrier and lets your pre-IIci 68020- or 68030-based Mac access the same amount of RAM (or virtual memory) as the newer models: a whopping 4 *gigabytes* (billions of bytes, or thousands of megabytes) — although no current Mac can be stuffed with that much RAM. Developed by Connectix, MODE32 is distributed free by Apple, conscientious dealers, user groups, and ZiffNet/Mac (*MacUser*'s CompuServe-based on-line service). If you plan to use multiple memory-intensive applications — especially graphics, sound, or multimedia programs that produce enormous files — get a Mac with 32-bit-clean ROMs or get MODE32.

An abundance of RAM is valuable not just for running memory-hungry programs such as Adobe Photoshop and MacroMind Director. Perhaps more important, with a pile of RAM, you can open multiple applications and *leave* them open, either in MultiFinder under System 6 or in the standard multiapplication environment of System 7. It's a tremendous productivity booster to switch back and forth among tasks — revising a spreadsheet in Claris Resolve, jotting down some text in Microsoft Word, touching up an illustration in Aldus FreeHand, and then importing it all into a QuarkXPress layout — without launching or closing applications.

Figure 2: The 68000 Family



Color Considerations

All the RAM in the world can't help you improve the appearance — or performance — of your Mac's monitor, but picking a Mac with the right microprocessor can. All 68000-based Macs have one common feature, a monochrome screen. This is not simply a matter of economy; it's also a question of performance. Every pixel on a monochrome screen corresponds to 1 bit of information, which is either on (black) or off (white). A Mac that uses 32-bit Color QuickDraw to display a 24-bit-color image, on the other hand, uses a full 4 *bytes* (32 bits) of information for each pixel. (The missing 8 bits — the *alpha channel* — can be used by applications for special effects such as transparency.) The power required to process and display a 24-bit-color image is enormous compared with that needed for a black-and-white 1-bit image. A 1-bit Mac Classic must process only 175,000 bits to display one screen. At the other extreme, a Mac processing a screenful of 24-bit color to display on the Macintosh 21-inch Color Display System must crunch well over 30,000,000 bits of color information — more than 175 times the work.

No wonder that even the entry-level

Figure 2: All Macs are based on the same family of Motorola microprocessors: the 68000 series, an ever-improving progression of chips named after the number of transistors inside the first. The 68040, used by the Quadra 700 and 950, contains 1,200,000 transistors within its dime-sized dimensions. It also holds a commanding lead over its predecessors in MIPS (millions of instructions per second) and MFLOPS (millions of floating-point operations per second).

Figure 3: Performance of the Mac Family

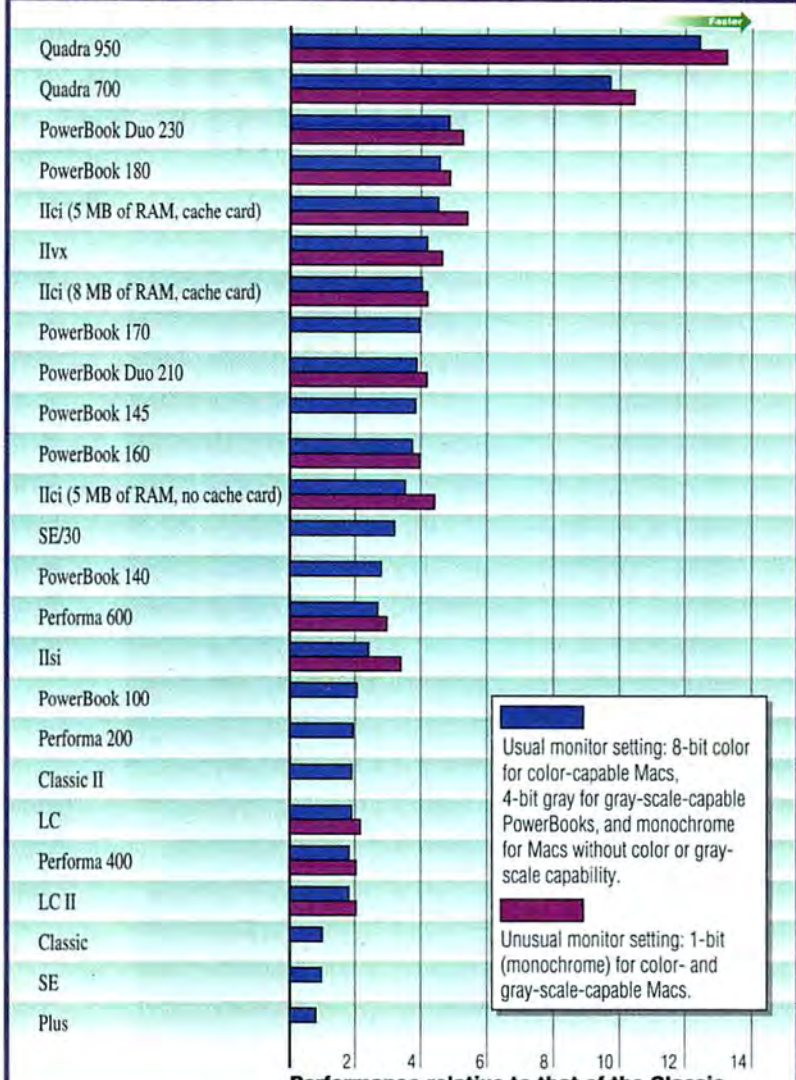


Figure 3: When the Mac was introduced in 1984, you were limited to a single choice: the slow, memory-starved floppy-drive-only model. A scant eight years later, 19 Macs vie for your attention.

We compared 19 of the current Macs with 5 popular, although discontinued, ancestors. We ran each — with its monitor set to monochrome and, when possible, to 8-bit color or 4-bit gray scale — through a battery of processor- and disk-intensive tests involving an Adobe Illustrator 3.0 preview, a complex financial recalculation in Microsoft Excel 4.0, an extensive search-and-replace chore in Microsoft Word 5.0, a scroll through a ten-page Word document, and a sort of a 2,000-record Claris FileMaker Pro database.

After we'd normalized and plotted the results of these tests, we discovered that the most powerful Mac — the Quadra 950 — is more than 12 times as fast as today's slowest Mac, the Classic. We also discovered that the on-board video of the IIsi and the IIci hampers their performance when these two otherwise-speedy Macs are set to their standard display mode of 8-bit color and that the IIci is fastest when only 1 megabyte of RAM is in its first bank of SIMMs (in our tests, the second bank was filled with four 1-megabyte SIMMs).

Even in today's econo amazing growth

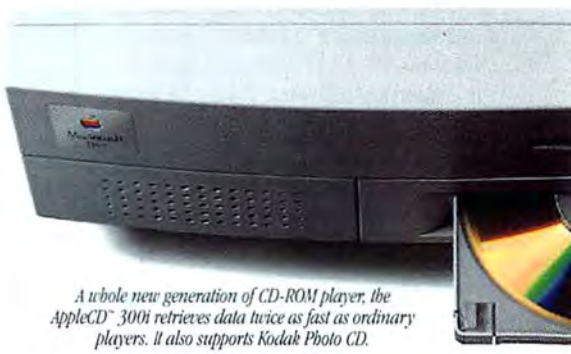


The new Macintosh IIvx (shown here with our new 14" Macintosh Color Display) is the most flexible Macintosh II available. It's also fast, powerful and extremely affordable.





To take full advantage of its stereo-out sound capabilities, plug in your own pair of self-powered speakers — and get the most out of this great multimedia Macintosh.



A whole new generation of CD-ROM player, the AppleCD™ 300i retrieves data twice as fast as ordinary players. It also supports Kodak Photo CD.



While 4 megabytes of memory are standard, you can add up to 68 megabytes of RAM to help you zip through even the most complicated projects.

In these times when every budget dollar is precious, the new Apple® Macintosh® IIvx personal computer is ideal.

It's fast. It's powerful. And it costs a lot less than you'd think. But equally important, it's prepared for the next economic expansion, when you'll want to add onto its already vast capabilities.

Inside its sleek exterior resides a 5¼" expansion bay — room for an internal CD-ROM drive, SyQuest drive or other mass storage devices — as well as a standard 3½" bay for either an

Screen photo image source: Kodak Photo CD disc. "When transferring copyrighted video materials, please ensure that you have complied with applicable laws. © 1992 Apple Computer, Inc. All rights reserved. Apple, the Apple logo, HyperCard, Mac, Macintosh and "The power to be your best" are registered trademark E-Machines, Inc. The Motorola logo is a registered trademark of Motorola Inc. SuperMac and VideoSpigot are trademarks of SuperMac Technology. SyQuest is

my, one can still find opportunities.



Pop in E-Machines' video/Ethernet card, and get high-performance video and high-performance networking all in one. This is just one of the many expansion cards you can buy separately.



Another option in the 5¼" bay — a 44- or an 88-megabyte SyQuest drive that uses removable cartridges for archiving or transferring large projects.



Out of the box, the Macintosh IIvx supports up to a 14" monitor and 256 colors. Add a card and some VRAM, and it can handle up to a 21" monitor and millions of colors.



With its 32-bit architecture and 32 MHz 68030 chip, the Macintosh IIvx gives you seven times the performance of a Macintosh Classic® computer.

The Macintosh IIvx comes with a microphone and sound jack for adding sound to HyperCard® stacks and QuickTime™ movies or voice-annotating documents.





Plug in a third-party card like the VideoSpigot, and you can transfer video directly from a camcorder or VCR to your hard disk – for making your own QuickTime movies.



For massive backup, you can buy a DAT unit for its 5¼" bay, and have gigabytes of storage.



When you buy the Macintosh IIvx with CD-ROM, we'll give you nine CDs to get started. So you can immediately begin accessing applications, photos, games — even entire books.





If all of the internal expansion capacity isn't enough, it has support for up to five external peripherals, built-in networking, printer and modem support — just like every Mac.

80-megabyte or a 230-megabyte internal hard disk drive.

It also gives you three NuBus™ slots and an accelerator slot so you can add even more power and performance.

To see the new Macintosh IIvx for yourself, visit an authorized Apple reseller today. For the power you need most of all. The power of Macintosh. The power to be your best.®

Introducing the Macintosh IIvx.

of Apple Computer, Inc. AppleCD and QuickTime are trademarks of Apple Computer, Inc. Classic is a registered trademark licensed to Apple Computer, registered trademark of SyQuest Technology. NuBus is a trademark of Texas Instruments. This ad was created using Macintosh personal computers.

Inc. Bose is a registered trademark of Bose Corporation. Kodak and Photo CD are trademarks of Eastman Kodak Company. E-Machines is a trademark of

RAM Rules

When deciding how much RAM (random-access memory) you need, you should follow one simple rule: The more, the merrier. Fortunately, when you install higher-capacity RAM SIMMs (single in-line memory modules) in your office's high-end Macs, you can distribute the leftover lower-capacity RAM to your office mates. Swapping RAM between Macs is, almost literally, a snap.

There are exceptions, however. Even though all Macs from the Plus onward — except for the PowerBooks, the PowerBook Duos, and the Portable — use SIMMs, the IIfx requires a special variety that doesn't work in other Macs. But with the exception of rare *parity SIMMs* required in some government-bound machines, all Macs use standard 8-bit SIMMs — that is, SIMMs that hold and transfer information 8 bits, or 1 *byte*, at a time. A Mac has either a 16- or a 32-bit *data path* — that is, it transfers information from memory to the microprocessor 16 or 32 bits at a time, depending on the Mac model. To fill this path evenly, SIMMs are installed either in pairs (16 bits) or in quartets (32 bits) of the same capacity.

The key to knowing which SIMMs work in which Macs is in the product codes stamped on RAM chips; they tell you how big and how fast the chips are. RAM chips often have a part number stamped on them that indicates their size — for example 256, 1000, or 4000, for 256 kilobits, 1 megabit, or 4 megabits, respectively. Another number, usually in the 70-to-150 range, indicates the speed of the chip — how quickly it can load or unload 1 byte of data — in nanoseconds. If the part numbers on your SIMMs don't decode easily, simply ask your friendly SIMM manufacturer to decode them for you.

Multiply the number of chips by the capacity of each, and you get the total capacity of the SIMM. For example, a 1-megabyte SIMM usually contains eight 1-megabit chips, for a total of 8 megabits, or 1 megabyte. (Remember, 1 megabyte is 1,048,576 bytes, *not* 1,000,000 bytes.)

Unless you're using SIMMs that are larger than 1 megabyte, you need concern yourself only with how fast the memory is and whether or not it will physically fit in the spaces inside the Macintosh. In compact Macs, such as the SE and SE/30, "tall" RAM made from older *DIP* (dual in-line package) chips doesn't fit; you need newer SIMMs made from low-profile *surface-mount* chips. In general, RAM that works in faster Macs also works in slower Macs.

The Mac Classic II and the LC II have 2 and 4 megabytes of RAM on the motherboard respectively, and one 16-bit bank of two SIMM sockets, which can accept 1-, 2-, or 4-megabyte SIMMs. The Mac IIsi has 1 megabyte on the motherboard and one 32-bit bank of four SIMM sockets, which each accept a SIMM as large as 16 megabytes, for a maximum total RAM configuration of 65 megabytes.

The SE/30, II, IIx, IIcx, IIsi, IIvx, and IIci can also accept SIMMs with a capacity as large as 16 megabytes. With the exception of the Macintosh II and IIsi, all these Macs have 32-bit, four-slot SIMM banks and can support between

	Data path	Minimum RAM speed (nanoseconds)	Number of SIMM slots
Consumer			
Performa 200	16 bits	100 ns	2
Performa 400	16 bits	100 ns	2
Performa 600	32 bits	80 ns	4
Performa 600 CD	32 bits	80 ns	4
Low-cost			
Classic†	16 bits	150 ns	2
Classic II	16 bits	100 ns	2
LC II	16 bits	100 ns	2
Modular			
IIsi	32 bits	100 ns	4
IIvx	32 bits	80 ns	4
IIci	32 bits	80 ns	8
Notebook			
PowerBook 100	16 bits	100 ns	0§
PowerBook 145	32 bits	100 ns	0§
PowerBook 160	32 bits	100 ns	0◊
PowerBook 170	32 bits	100 ns	0§
PowerBook 180	32 bits	100 ns	0◊
PowerBook Duo 210	32 bits	100 ns	0**
PowerBook Duo 230	32 bits	100 ns	0**
68040-based			
Quadra 700	32 bits	80 ns	4
Quadra 950	32 bits	80 ns	16
Discontinued			
Plus	16 bits	150 ns	4
SE	16 bits	150 ns	4
LC	16 bits	100 ns	2
SE/30	32 bits	120 ns	8
II	32 bits	120 ns	8
IIx	32 bits	120 ns	8
IIcx	32 bits	120 ns	8
IIfx	32 bits	80 ns	8
PowerBook 140	32 bits	100 ns	0§
Quadra 900	32 bits	80 ns	16

Table A: You can never have too much RAM. Depending on the type of SIMM you use, you can load a maximum of 4 megabytes into your Classic or 256 megabytes into your Quadra 950. Remember: If you have a Mac with a 16-bit data path, you must install pairs of SIMMs; a Mac with a 32-bit data path requires SIMMs in groups of four.

64 and 128 megabytes of RAM. The Mac II is limited to 68 megabytes until you install an FDHD (floppy disk, high density) upgrade, which comes with the newer ROMs that are required to support 128 megabytes.

The Quadra 700 has 4 megabytes of RAM soldered onto the motherboard; the Quadra 950 has no RAM on the motherboard itself but comes with 4 megabytes of RAM in slots. The Quadra 700 has one 32-bit, four-slot SIMM bank; the Quadra 950 has four. When fully loaded with 16-megabyte SIMMs, these machines support 68 and 256 megabytes, respectively.

The PowerBooks and the PowerBook Duos include a single connector for a special RAM *daughtercard*. Currently, daughtercards containing as much as 6 megabytes of low-power *pseudostatic* RAM are supported on the 145 and the 170, as much as 12 megabytes on the 160 and the 180, and as much as 20 megabytes on the PowerBook Duo 210 and 230.

— Jeff Pittelkau

RAM on motherboard	Maximum RAM when all SIMM slots are filled with SIMMs of this type:				
	256K	1 MB	2 MB	4 MB	16 MB*
2 MB	NA	4 MB	6 MB	10 MB	NA
4 MB	NA	6 MB	8 MB	10 MB	NA
4 MB	5 MB	8 MB	12 MB	20 MB	64 MB
4 MB	5 MB	8 MB	12 MB	20 MB	64 MB
1 MB	2.5 MB	4 MB	NA	NA	NA
2 MB	NA	4 MB	6 MB	10 MB	NA
4 MB	NA	6 MB	8 MB	10 MB	NA
1 MB	2 MB	5 MB	9 MB	17 MB	65 MB
4 MB	5 MB	8 MB	12 MB	20 MB	68 MB
none	2 MB	8 MB	16 MB	32 MB	128 MB
2 MB	NA	NA	4 MB	6 MB	NA
2 MB	NA	NA	4 MB	6 MB	NA
4 MB	NA	NA	◊	◊	◊
2 MB	NA	NA	4 MB	6 MB	NA
4 MB	NA	NA	◊	◊	◊
4 MB	NA	NA	**	**	**
4 MB	NA	NA	**	**	**
4 MB	NA	8 MB	NA	20 MB	68 MB
none	NA	16 MB	NA	64 MB	256 MB
none	1 MB	4 MB	NA	NA	NA
none	1 MB	4 MB	NA	NA	NA
2 MB	NA	4 MB	6 MB	10 MB	NA
none	2 MB	8 MB	NA	32 MB	128 MB
none	2 MB	8 MB	NA	32 MB	68 MB††
none	2 MB	8 MB	NA	32 MB	128 MB
none	2 MB	8 MB	NA	32 MB	128 MB
none	2 MB	8 MB	NA	32 MB	128 MB
2 MB	NA	NA	4 MB	6 MB	NA
none	NA	16 MB	NA	64 MB	256 MB

*Although 16-megabyte SIMMs can be used in 68030- and 68040-based Macs, Apple has not yet defined their physical (heat and size) properties.

†The Classic's RAM-expansion capacity assumes use of Apple's memory-expansion card, which has 1 megabyte soldered on-board and two SIMM slots.

§This PowerBook has a single socket for a daughtercard containing 2, 4, or 6 megabytes of pseudostatic RAM; it does not have a SIMM slot.

◊This PowerBook can be upgraded to a maximum of 12 megabytes; upgrade information and pricing were not available at press time.

**This PowerBook can be upgraded to a maximum of 20 megabytes; upgrade information and pricing were not available at press time.

††The Mac II can support 128 megabytes of RAM after installation of an FDHD upgrade, which includes new ROM chips.

color Macs — the LC II and the Performa 400 — use a 68030 microprocessor, which is much more powerful than the 68000 of the monochrome Classic. Also, unlike the Classic, the LC II (like the Quadras) contains circuitry that offloads much of the screen-processing duties from the microprocessor and has separate *VRAM* (video random-access memory) to store the information to be displayed on-screen. Both the Classic and the Classic II require the microprocessor to manage the screen and use main memory (RAM) to store screen information.

Like the LC II and the Quadras, the IIsi and the IIci include plug-and-play video, but RAM, rather than VRAM, is used to store video information. While the video circuitry is updating the screen, the CPU waits and performance suffers. Also, when 4 megabytes or more of RAM is installed in the first of the IIci's two SIMM banks, a larger portion of system software and applications are forced to share RAM space with video, further slowing performance. Thus, an 8-megabyte IIci (with 4 megabytes of RAM in each of the two banks of SIMMs) is slower than a 5-megabyte IIci (with 1 megabyte of RAM in the first bank and 4 megabytes in the second). Because the IIsi's first SIMM bank consists of 1 megabyte of RAM permanently soldered on the motherboard, video and applications are less likely to share the same SIMM bank — thus the degradation of performance is minimized although not eliminated.

If you choose a IIsi or a IIci, we recommend that you not rely on the machine's internal video. Spend a few extra dollars on an add-in video card — the improvement in performance will be well worth it. If you can't afford the card, increase the size of the Memory-control-panel cache — that will push system software and applications up into the second SIMM bank, improving performance when built-in video is used.

Although you can also achieve an increase in performance simply by setting your IIci's or IIsi's monitor to 1-bit mode, thus limiting its screen to black-and-white, we'll bet that you won't want to — even when all you're doing is entering numbers into a spreadsheet. Color is not just for graphics; it's an enhancement to the entire computing experience. Color displays are not only more aesthetically pleasing — an advantage not to be taken lightly when you spend most of your day staring into one — but

Table 1: Video Variety

	Color QuickDraw	Video interface	Built-in 9.8-inch LCD panel (640 x 400 pixels)
Consumer			
Performa 200	32-bit	internal CRT	NA
Performa 400	32-bit	built-in video	NA
Performa 600*	32-bit	built-in video	NA
Performa 600 CD	32-bit	built-in video	NA
Low-cost			
Classic	none	internal CRT	NA
Classic II	32-bit	internal CRT	NA
LC II	32-bit	built-in video	NA
Modular			
IIsi	32-bit	built-in video	NA
IIvx*	32-bit	built-in video	NA
IIci	32-bit	built-in video	NA
Notebook			
PowerBook 100	none	internal LCD panel	1 bit†
PowerBook 145	32-bit	internal LCD panel	1 bit
PowerBook 160	32-bit	internal LCD panel	4 bits
PowerBook 170	32-bit	internal LCD panel	1 bit
PowerBook 180	32-bit	internal LCD panel	4 bits
PowerBook Duo 210§	32-bit	internal LCD panel	4 bits
PowerBook Duo 230§	32-bit	internal LCD panel	4 bits
68040-based			
Quadra 700◊	32-bit	built-in video	NA
Quadra 950◊	32-bit	built-in video	NA
Discontinued			
Plus	none	internal CRT	NA
SE	none	internal CRT	NA
LC*	32-bit	built-in video	NA
SE/30	8-bit**	internal CRT	NA
II	8-bit**	8•24 NuBus card	NA
IIx	8-bit**	8•24 NuBus card	NA
IIcx	8-bit**	8•24 NuBus card	NA
IIfx	32-bit	8•24 NuBus card	NA
PowerBook 140	32-bit	internal LCD panel	1 bit
Quadra 900	32-bit	built-in video	NA

*All Performa 600, LC, and IIvx bit depths are with optional 512K VRAM installed.

†The PowerBook 100's LCD panel has a diagonal measurement of 9 inches.

§All PowerBook Duo bit depths are with optional 512K VRAM installed.

◊All Quadra bit depths are with optional 2-megabyte VRAM installed.

**Requires 32-bit QuickDraw system extension for color more than 8 bits deep.

††The Apple 8•24 GC NuBus card can support 16-bit color with new ROM and software.

color itself is also an excellent organizational tool.

Different Macs have different color capabilities, depending on their internal video circuitry (see Table 1). When deciding on a color Mac, don't be too quickly seduced by 24-bit color. In most cases — even if you're preparing complex presentations with charts and graphs — 8-bit color should be plenty for your needs. The 256 colors it provides may not sound like much compared with the 16,772,216 provided by 24-bit color, but only specialized applications such as image retouching and high-end graphics really require the broad range of hues and tones provided by high-end color.

Built-in 9-inch CRT (512 x 342 pixels)	12-inch color display (512 x 384 pixels)	12-inch monochrome 13-inch color display 14-inch color display (640 x 480 pixels)	Portrait display (640 x 870 pixels)	16-inch color display (832 x 624 pixels)	21-inch monochrome 21-inch color display (1,152 x 870 pixels)
1 bit	NA	NA	NA	NA	NA
NA	16 bits	8 bits	NA	NA	NA
NA	16 bits	8 bits	8 bits	16 bits	NA
NA	16 bits	8 bits	8 bits	16 bits	NA
1 bit	NA	NA	NA	NA	NA
1 bit	NA	NA	NA	NA	NA
NA	16 bits	8 bits	NA	NA	NA
NA	8 bits	8 bits	4 bits	NA	NA
NA	16 bits	8 bits	8 bits	16 bits	NA
NA	8 bits	8 bits	4 bits	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	8 bits	8 bits	4 bits	8 bits	NA
NA	NA	NA	NA	NA	NA
NA	8 bits	8 bits	4 bits	8 bits	NA
NA	16 bits	16 bits	8 bits	16 bits	NA
NA	16 bits	16 bits	8 bits	16 bits	NA
NA	24 bits	24 bits	8 bits	24 bits	8 bits
NA	24 bits	24 bits	8 bits	24 bits	16 bits
1 bit	NA	NA	NA	NA	NA
1 bit	NA	NA	NA	NA	NA
NA	16 bits	8 bits	NA	NA	NA
1 bit	NA	NA	NA	NA	NA
NA	24 bits	24 bits	8 bits	8 bits††	8 bits
NA	24 bits	24 bits	8 bits	8 bits††	8 bits
NA	24 bits	24 bits	8 bits	8 bits††	8 bits
NA	24 bits	24 bits	8 bits	8 bits††	8 bits
NA	NA	NA	NA	NA	NA
NA	24 bits	24 bits	8 bits	24 bits	8 bits

Table 1: All the currently shipping Macs include an internal video controller that drives either an external monitor or an internal CRT or an LCD panel. Many discontinued Macs, such as the II, IIx, IIcx, and IIfx, require drop-in NuBus video cards. The internal video (or the video card or third-party equivalent in discontinued Macs that require them) of each Mac can provide a variety of video resolutions, depending on the pixel dimensions of the monitor to which it is attached. Only Apple display systems are listed here; third-party equivalents may differ slightly.

DEClaser 1152 PostScript Level 2 Laser Printer

High Print Performance . . . At the Lowest Possible Price

digital™



Shared PostScript Printing . . . Without Compromise

The newest member of the DEClaser family, the DEClaser 1152 offers superb price/performance. Greater versatility, advanced power, and low cost make it the premier print companion for PC, Macintosh® and Digital desktops — whether directly connected or shared. It's also an economical solution for small PC networks.

The DEClaser 1152 is one of the lowest cost desktop PostScript® laser printers available in the marketplace today. Yet you compromise none of the performance features you need. Four-page-per-minute print speed . . . 300 dpi resolution . . . up to three simultaneously active I/O ports . . . and support for Adobe® PostScript Level 2 and Hewlett-Packard® LaserJet® II (HP® PCL® 4) emulation protocols.

Based on the industry-standard Canon print engine, the DEClaser 1152 offers a number of advantages: reliability, superb paper handling, high print quality, and a single cartridge for all printer supplies. For all its power, the DEClaser 1152 features the same small footprint as previous DEClaser 1100 models — preserving precious space on the desktop.

Highlights

- Superb performance at low cost. The ideal print solution for PCs, Macintosh systems, and workstations.
- Support for PostScript Level 2 and HP LaserJet II (HP PCL 4) industry-standard protocols. Backward compatibility with PostScript 1 ensures application investment protection.
- Up to three active ports: Serial, Parallel, and AppleTalk®. One printer serves multiple hosts.
- Sharper images. Incorporates DECimage, a patented image rendering technology for crisper edges and finer detail.
- PostScript Level 2. Offers data compression and decompression, font and forms caching, better memory management, and more.
- Complete network capability. Supports PC and Macintosh LANs. With LATprint server attached, connects to VAX and UNIX® hosts.
- Memory and font upgradability. As need demands, upgrade from the standard 2 MB to 4 MB memory. And from the built-in standard 17 Adobe PostScript fonts up to a total of 43. That's more than twice the number of scalable fonts built into the LaserJet IIIP.
- Quality, economy, and user-friendliness. Printer technology is based on the industry-leading Canon engine. You get reliability, superb paper handling, high print quality, and a single cartridge for all printer supplies.

The Printer That Keeps Pace

In business today, the definition of the word "document" is far broader than ever before. Integrated graphics, digitized images, and varied fonts make the printed page a more powerful statement — and the "desktop" user a more effective communicator. Such power, however, calls for printers that can keep pace. The DEClaser 1152 answers the call with a cost-effective solution.

Support for All Your Desktop Devices

Your knowledge workers want to work with familiar applications, on the desktop device of their choice. Yet you want to minimize the number of printers you need to purchase. To answer both sets of needs, the DEClaser 1152 supports PostScript Level 2 and Hewlett-Packard LaserJet II (HP PCL 4). Both are industry standards, supported on more than 5,000 and 20,000 applications respectively.

Powerful, flexible, programmable— PostScript Level 2 introduces features that make document handling and printing even more efficient.

- For faster printing time, PostScript Level 2 supports industry-standard formats for compression and decompression.
- Font and forms caching makes more efficient use of resident or downloadable fonts.
- Better memory management permits you to print more jobs and perform more functions.

PostScript Level 2 is compatible with PostScript 1, which is supported by PCs, Macintosh systems, UNIX workstations, and environments such as Windows™, OS/2®, Novell®, SCO™ UNIX, and OSF®. You gain investment protection, and assured compatibility for operating systems of the future. In the same fashion, the DEClaser 1152 will support new PostScript Level 2 applications when they become available.

To manage multiple protocols, VAX system users can purchase DECprint Supervisor for Base VMS (DCPS), an optional software package available under two licenses: DCPS-Base for PostScript and simple ASCII files, and DCPS Plus for a full range of printer language translators, including PPL3 (LNO3). DCPS Plus also includes such value-added features as lay-up and number-up for more flexible, economical page management.

Three Active Ports

With its three interface ports (Serial, Parallel, and AppleTalk), the DEClaser 1152 offers flexibility in an environment of shared computing. The printer can be configured with two serial ports and one parallel port — or the AppleTalk and Parallel ports — active simultaneously. Auto Port Sensing allows users to print from any port, without leaving their desks.

The DEClaser 1152 can be a shared printer among multiple Macintosh systems via the AppleTalk port. With an inexpensive two-port LATprint terminal server connected via ThinWire to the serial port, it can also link to the larger network world of PATHWORKS, VAX, and UNIX hosts.

Superior Image Rendering

For higher-quality output, the DEClaser 1152 includes DECimage, a patented image-rendering technology that produces crisper edges and finer detail—without added hardware.

The software's programmable controls permit adjustment of dynamic range, rendering resolution, and black-and-white punch factors — all with a simple command. Best of all, you can change these parameters without modifying your applications or critical data files.

Other Powerful Features

As your needs grow, so can the DEClaser 1152. Resident memory can be doubled to 4 MB to manage more demanding documents. For more visual impact in your documents, you can download additional fonts from the host system — or install an optional 26-font cartridge.

In word processing environments, addition of an optional paper tray offers greater flexibility. Load one tray with letterhead sheets, for example, and the other with plain paper for the rest of the document. Or if the call is for overhead presentations, one tray can be loaded with transparencies.

Ordering Information

Item	Number	Description
Printer		
	LNO7C-CA*	PostScript Level 2, 4 ppm, with 10-foot MMJ cable
	LNO7C-AD	Denmark Country Kit: power cord, 220 V
	LNO7C-AE	UK/Ireland Country Kit: power cord, 240 V
	LNO7C-AI	Italy Country Kit: power cord, 220 V
	LNO7C-AG	German/Austrian Country Kit: power cord, 220 V
	LNO7C-AS	Spain Country Kit: power cord, 240 V
	LNO7C-AT	Israel Country Kit: power cord, 240 V
	LNO7C-AZ	Australia, NZ Country Kit: power cord, 240 V
	LNO7C-CB	Switzerland Country Kit: power cord, 220 V
	LNO7C-CC	Sweden, Finland, Norway, Portugal Country Kit: power cord, 220 V
	LNO7C-CD	Belgium, Holland, France Country Kit: power cord, 220 V
Memory Upgrade		
	LNO7X-UF	2 MB memory board
Optional PostScript Font Cartridges/Kits		
	LNO7X-PF	26 PS Font Cartridge Only
	LNO7X-PM	26 PS Font w/ATM, 43 Screen Fonts for Macintosh
	LNO7X-PW	26 PS Font w/ATM, 43 Screen Fonts for Windows
Toner Cartridge		
	LNO7X-AA	Toner
Paper Cassettes		
	A4 LNO7X-TA	250 sheet
	Legal LNO7X-TB	250 sheet
	Executive LNO7X-TE	250 sheet
	Letter LNO7X-TF	250 sheet
	Envelope LNO7X-TD	20 envelope
Parallel Cable		
	BC19M-06	6-foot cable
	BC19M-10	10-foot cable
Macintosh Cable		
	BCC46-06	6-foot cable
LATprint Server		
	LNXXD-AA	2-port Ethernet connection for OpenVMS, ULTRIX
Licenses		
	DCPS-Base	QL-09FA9-AA Optional for DECansi VAX users
	DCPS-Plus	QL-09LA9-AA Optional for DECansi VAX users
DCPS Media Kit		
		QA-09NAA-H Software media
DCPS Documentation Kit		
	QA-09NAA-GZ	For VAX and Alpha AXP Systems
PostScript Level 2 Programmers Supplement		
	EK-PSPTR-RM.A01	PostScript Programming Manual

* North American Ordering Number

digital™

OpenVMS Environment Requirements

To use the DEClaser 1152 in PostScript mode in an OpenVMS environment, DCPS-Base must be installed. This software requires OpenVMS V5.3 or higher. In a non-OpenVMS environment, or when the printer is set in HP PCL 4 emulation mode, DCPS is not required.

For More Information

To learn more about the DEClaser 1152, contact your local Digital sales representative or Authorized Digital Reseller.

Specifications

Function		DEClaser 1152
Print Technology		Canon Laser Xerography
Print Resolution		300 x 300 dots per inch (enhanced by DECimage)
Speed		4 pages per minute
Monthly Usage		Up to 6,000 pages
Paper Types		Cutsheet (Standard, European A4, Executive, Legal) labels, transparencies, envelopes
Paper Weight		
Cassette feed		16–24 lb
Manual feed		16–35 lb
Lower cassette		16–28 lb
Paper Trays		
Input:	Standard	70 sheets
	Optional	250 sheets
Output:	Face Up	20 sheets
	Face Down	50 sheets
Resident Memory		2 MB (upgradable to 4 MB)
Data Interfaces		EIA-232 (DB25), EIA-423 (MMJ), Micro-Pin (AppleTalk or Serial), Centronics® Parallel (36-pin). Printer can be configured to support either 2 Serial and 1 Parallel, or 1 AppleTalk and Parallel.
Protocols Supported		PostScript Level 2, HP LaserJet 2 (HP PCL 4, and DECansi/Sixel)
Fonts		
Resident		17 Adobe PostScript (upgradable to 43)
Optional		Downloadable or font cartridges
Baud rate		EIA-232/EIA-423: 300 to 38.4 KB Serial: 300 to 38.4 KB AppleTalk: 230 KB
Physical Characteristics		
Width		350 mm (13.8 in)
Height		204 mm (8.0 in) 259 mm (10.2 in) (with optional feeder)
Depth		405 mm (15.9 in)
Weight		11.5 kg (25 lb)
Noise Level		53 dB (maximum when printing) 43 dB (maximum when idle)

Note: Printer is shipped with MMJ serial cable and toner cartridge. Parallel and Macintosh cables not included.

Digital believes the information in this publication is accurate as of its publication date; such information is subject to change without notice. Digital is not responsible for any inadvertent errors.

The following are trademarks of Digital Equipment Corporation: Alpha AXP, DECimage, DEClaser, DECprint, the DIGITAL logo, LATprint, LNO3, OpenVMS, PATHWORKS, ThinWire, ULTRIX, and VAX.

Adobe and PostScript are registered trademarks of Adobe Systems, Inc. AppleTalk and Macintosh are registered trademarks of Apple Computer, Inc. Centronics is a registered trademark of Centronics Data Computer Corp. Hewlett-Packard, HP, LaserJet and PCL are registered trademarks of Hewlett-Packard Company. Novell is a registered trademark of Novell, Inc. OSF is a registered trademark of Open Software Foundation, Inc. UNIX is a registered trademark of UNIX System Laboratories, Inc. Windows is a trademark of Microsoft Corp.

Printed in U.S.A. EC-F2089-56 REL# 176,92 10 72 30.0 DAS/MKO Copyright 1992 Digital Equipment Corporation. All Rights Reserved.

Those 24 bits don't come cheap, and they require a lot of processing muscle — an accelerated 24-bit-video card is well worth the $2,000 or so you have to pay. And you need a NuBus slot for that card, so don't think about 24-bit color if you're planning to buy an LC II. Apple offers a compromise, however: an optional 512K VRAM SIMM for the LC II that provides 16-bit color on an Apple 12-inch RGB monitor (see Table 1). A 16-bit-color system gives you 32,768 colors — you'll be hard-pressed to detect the difference between it and a 24-bit-color system, unless you're involved in highly demanding color-graphics work such as rendering and photo retouching.

Also, remember that Apple's Video compression setting for QuickTime is based on a 16-bit imaging model. If you play a QuickTime movie on a Mac that's limited to 8-bit color, the playback will suffer in two ways: First, the Mac must transform each frame from 16- to 8-bit color, slowing playback considerably. Second, the movie will be *dithered.* That is, instead of smooth, seamless 16-bit color, you'll see grainy images as the Mac tries to compensate for its limited palette by combining pixels in its 256-color range into groups designed to fool the eye into seeing colors that really aren't there — much as the four colors of the

Table 2: The Current Mac Family

	Pros	Cons	Ideal Users
Consumer			
Performa 200	• Inexpensive 68030 Mac. • Bundled software. • One-year on-site service.	• Slow 16-bit data path. • Small monochrome display. • No slots or FPU.	• This entry-level consumer-oriented machine is best suited to users on a budget who don't want to pay extra for support or software.
Performa 400	• Inexpensive color Mac. • Bundled software. • One-year on-site service.	• No 24-bit color. • Limited expansion. • No FPU.	• This inexpensive color Mac is suited for families who want a computer for education and recreation.
Performa 600	• 32-MHz 68030. • Bundled software. • One-year on-site service.	• Mediocre performance. • Bundled with mediocre monitor. • FPU optional.	• This machine isn't really a good value for anyone who can afford the CD-ROM version.
Performa 600 CD	• Dual-speed CD-ROM drive. • Bundled software. • One-year on-site service.	• Mediocre performance. • Bundled with mediocre monitor. • FPU optional.	• Its built-in CD-ROM drive makes this a slightly more attractive Mac for families who want an education/recreation machine.
Low-cost			
Classic	• Least expensive Mac. • Compact and transportable. • Rugged power supply.	• Slowest current Mac. • Small monochrome display. • No slots or PMMU.	• This simple, straightforward Mac can meet the needs of students and word processors.
Classic II	• Least expensive 68030 Mac. • Compact and transportable.	• Slow 16-bit data path. • Small monochrome display. • No slots or FPU.	• This basic business machine works well for secretaries and spreadsheet jockeys.
LC II	• Lowest-cost color Mac. • Apple IIe-emulation-card option.	• No 24-bit color. • Limited expansion. • No FPU.	• If you must have color but don't need speed, this inexpensive Mac is for you.
Modular			
IIsi	• Good price and performance. • SE/30 PDS or NuBus slot. • Sound input.	• Slow on-board video uses RAM. • FPU optional. • Limited expansion.	• This moderately powered Mac is most at home on an office worker's desktop.
IIvx	• 32-MHz 68030. • RAM cache on motherboard. • Optional CD-ROM drive.	• No EtherTalk port. • No built-in support for two-page Mac display.	• Three NuBus slots make this new Mac a more versatile corporate workhorse than the IIsi.
IIci	• Three NuBus slots. • RAM-cache card included. • Includes FPU.	• Slow on-board video uses RAM. • Oldest Mac now shipping.	• Bypass the on-board video, and you have a Mac worthy of DTP and database-management mavens.

It looks like a floppy...



it feels like a floppy...



It tastes like a floppy...



but it's a PLI floptical®



21MB diskette!

Still spending hours every week backing up your hard drive onto regular floppies?

Let us introduce you to a solution you can really sink your teeth into.

The PLI floptical.

On the surface, the floptical looks like a regular 3.5" floppy. And because it's downward compatible, it reads and writes ordinary 720K and 1.44MB floppy disks. So you can renew your system instead of redoing it.

Unique embossed optical servo tracks give the floptical highly accurate positioning of the read/write head, allowing track densities of 1245 tracks per inch (compared to 135 tpi for ordinary floppies).

Even better, these servo tracks can't be erased or damaged, making floptical disks safer than any other servo-based media.

The floptical is also superbly convenient for performing backups or transferring files across the office or the world.

And floptical disks are coated with barium ferrite, effectively removing corrosion concerns. This ultra-reliable media easily allows an increase in bit densities to 24,000 bits per inch, so each floptical disk can hold 21MB of text, graphics or spreadsheets—and access it nearly three times faster than a standard floppy.

floptical®

®Floptical is a resistered trademark of Insite Peripherals. All products are trademarks or registered trademarks of their respective companies.

PLI floptical. Technology worth inspecting.

PLI

800-288-8754

Peripheral Land Incorporated • 47421 Bayside Parkway • Fremont, California 94538
510-657-2211 or Fax 510-683-9713

MUSE AD-33

CIRCLE 62 ON READER SERVICE CARD.

printing press combine to form the broad range of colors you see in this article. A printing press avoids graininess by using dots so small that your eyes can't discern them, but the pixels on your Mac's screen are far too large to blend seamlessly.

Storage Solutions

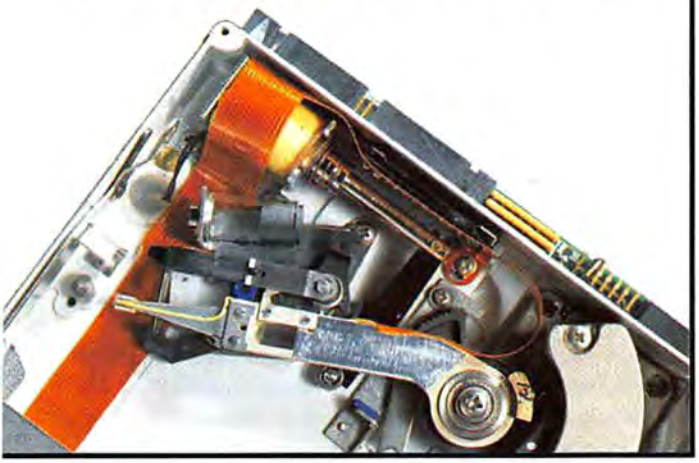
If you're thinking about color, you'll need a large-capacity hard drive. Color images are large: A 24-bit image can easily gobble up 10 to 20 megabytes of disk space. Apple recognizes this and offers its biggest drives — with a capacity of 400 megabytes — in the Quadras, the Macs most likely to be used for sophisticated image processing. In general, the hard-drive rule is akin to the RAM rule: Get the most storage space you can afford, even if all you're buying is a Mac Classic. You'll be surprised at how fast a hard disk can fill up, and the time you spend swapping files to and from your hard disk from a floppy archive is time wasted.

Remember also that the performance of your hard drive — or any SCSI device — depends on the speed of your Mac's SCSI port (see the "SCSI Secrets" sidebar). If you regularly use large graphics, sound, or video files or if you need to equip a file server or database server, hard-disk access is a consideration. Buy a

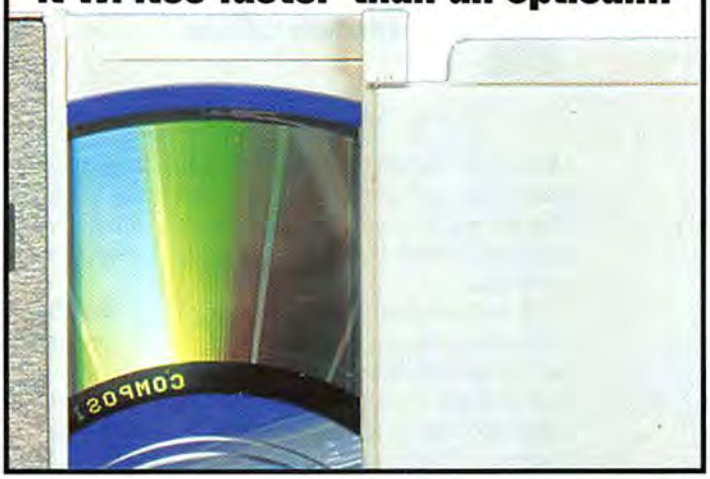
Table 2: The Current Mac Family, continued

	Pros	Cons	Ideal Users
Notebook			
PowerBook 100	• Inexpensive. • Light. • Twice as fast as a Classic.	• No internal floppy drive. • 20-MB hard drive only. • No video port, FPU, or PMMU.	• This light, low-performance Mac is designed for word-processing travelers.
PowerBook 145	• As fast as a PowerBook 170. • Good price for a speedy notebook.	• Monochrome LCD screen. • No video port or FPU. • Short battery life at top speed.	• Most business travelers will be satisfied with this powerful monochrome-display notebook.
PowerBook 160	• Gray-scale display. • Video port. • Improved NiCad battery.	• LCD screen. • Slowest 68030 PowerBook. • No FPU.	• A gray-scale display and video port make this notebook ideal for travelers who make presentations.
PowerBook 170	• IIci-class performance. • Active-matrix display. • Sound input, FPU, and modem.	• Expensive. • No video port. • Short battery life at top speed.	• A crisp monochrome display makes this powerful notebook ideal for traveling spreadsheet users.
PowerBook 180	• Gray-scale active-matrix display. • Video port. • Improved NiCad battery.	• Some screen shimmer at high angle. • Expensive.	• If you want a nondocking PowerBook as your primary Mac, this gray-scale beauty is for you.
PowerBook Duo 210	• Docking capability. • Gray-scale display. • Small and light.	• LCD screen. • No internal floppy drive. • Docking station contains most ports.	• If portability and convenience are important to you, choose a dockable PowerBook Duo.
PowerBook Duo 230	• Docking capability. • Gray-scale display. • Small and light.	• LCD screen. • No internal floppy drive. • Docking station contains most ports.	• If you need performance that's surpassed only by a Quadra, choose this 4-pound dockable notebook.
68040-based			
Quadra 700	• Very fast and compact. • LocalTalk and EtherTalk ports. • 32-bit color with 2 MB of VRAM.	• Expensive. • Some software incompatibility. • Doesn't support 2-MB SIMMs.	• Users doing high-end DTP and complex number crunching need this Mac's speed.
Quadra 950	• Very fast and expandable. • LocalTalk and EtherTalk ports. • 32-bit color with 2 MB of VRAM.	• Expensive. • Some software incompatibility. • Doesn't support 2-MB SIMMs.	• With dual SCSI ports and room for as many as four hard drives, this is your best choice for a file server.

It works like a hard drive...



it writes faster than an optical...



it moves like a floppy diskette...



but it's an Infinity 88 Turbo



removable drive from PLI.

88MB Removable Hard Disks

The PLI Infinity 88 Turbo uses time-proven Winchester technology. That's the same technology used by your hard disk drives! For years, it has set the standards of reliability and performance. But now you can have that trusted technology and the benefits of removable technology.

It's as fast as a hard drive!

That's because it is a hard drive. You get fast 20ms access times and world-class data transfer rates. In fact, these drives are faster than any other removable cartridge drive on the market. When you need speed, think PLI Infinity 88 Turbo.

Convenient, Removable Media!

Because the cartridges are removable, you can take your data from place to place, or lock it up for safekeeping. And since the PLI Infinity 88 Turbo is the standard for service bureaus throughout the world, the cartridges are a fast, convenient way to get those big DTP jobs done. For added convenience, the PLI Infinity 88 Turbo also reads the popular 44MB cartridges!

PLI, maker of the Infinity 88 Turbo, is the leader in removable storage. PLI has offered products of the highest quality and offered the best in service and support since the earliest days of the personal computers. For your convenience, PLI drives are available as internal or external units.

All products are trademarks or registered trademarks of their respective companies.

Removable storage you can rely on.

800. 288. 8754

Peripheral Land Incorporated • 47421 Bayside Parkway Fremont, CA 94538
510. 657. 2211 • Fax 510. 683. 9713

FEATURING SyQuest REMOVABLE TECHNOLOGY

PLI

MUSE AD-35

CIRCLE 63 ON READER SERVICE CARD.

Mac with fast SCSI — the Quadras are by far the fastest, but the IIci and the IIsi are also quite respectable — and you'll never regret the cost. Time is money.

If you can avoid it, don't buy a hard drive from Apple. Although Apple's drives are consistently good performers and are exceedingly well built, they are also exceptionally costly. Apple's 80-megabyte Hard Disk 80SC, for example, lists for $1,099. Compare that with a similarly priced 425-megabyte Quantum drive from APS, La Cie, MacLand, Club Mac, or one of the many other reputable direct-mail houses, and the little multicolored Apple logo begins to look mighty expensive.

And don't limit yourself to hard drives. A large selection of removable-cartridge drives is available at good prices (see "Magnetic-Cartridge Drives: The Next Generation," January '92, page 126, and "Storage Buyer's Guide," July '92, page 111). Removable-cartridge drives — such as magnetic-cartridge drives manufactured by SyQuest and Iomega and optical-cartridge drives offered by a variety of vendors — not only offer unlimited storage but are also ideal for quick and easy backup, effortless archiving, hassle-free security, and flexible startup options.

On the Road Again

One of the advantages of removable-cartridge drives is that you can pack multiple megabytes of work onto a cartridge, carry that cartridge to another Mac across town or across the country, slip it into a compatible drive, and resume your work. Although that's a convenient way to transport files, how do you continue working while in transit? Simple: Get a PowerBook.

The 68000-based PowerBook 100 is more than adequate if writing is your on-the-road occupation, although its lack of an internal floppy drive makes us a bit nervous. Buyers seem to agree with us, and response to the PowerBook 100 has been tepid. As a result, you can find it discounted to around $700 — when you can find it at all.

The other two members of the first PowerBook generation — the 140 (since upgraded to the 145) and the 170, with its sharp active-matrix screen — met with enormous success. And they did it the old-fashioned way: They earned it. With the speed of a Mac IIci, an integrated trackball and palm rest, and Apple's revolutionary AppleTalk Remote Access software, the PowerBooks are the perfect traveler's companion.

The second-generation PowerBooks — the 160 and the 180 — each have screens that are capable of 16 levels of gray and include a video-out port that can drive color monitors as large as 16 inches at a depth of 8 bits (256 colors or levels of gray). With Apple's new PowerBook Display control panel, the external monitor can function just like a second monitor on your desktop or can become a larger mirror image of the PowerBook screen — an attractive mode for those presenters who want to control a presentation from the PowerBook while sending the image out to a bigger screen.

For the ultimate in mobile computing, choose one of the new gray-scale-capable PowerBook Duos — either the Duo 210 or the top-of-the-line Duo 230. Weighing in at a little more than four pounds each, the Duos are not only the lightest, smallest portable

SCSI Secrets

Every Mac since the Plus uses SCSI (Small Computer Systems Interface), a popular method of connecting computers and peripherals, to communicate with hard drives, scanners, CD-ROM drives, optical drives, and other external devices. SCSI is your Mac's fastest connection to the outside world, but not all SCSI ports are created equal. If your work calls for the frequent transfer of large files to and from your hard drive, pick a Mac with the fastest SCSI port you can afford. Surprisingly, the IIsi and IIci outrace the otherwise speedy IIfx, although the two Quadras are the hands-down winners.

SCSI, Macintosh style, was originally introduced to answer the prayers of those who had purchased Apple's original hard drive for the Mac — the Hard Disk 20 — and found its serial-port interface abysmally slow. As Apple rushed to get the SCSI-equipped Plus ready for market, it chose to adopt only a subset of the full industry-accepted SCSI specification. Unfortunately, Apple's deviations from the standard imposed a maximum speed limit on the Mac's SCSI bus — a speed limit that wasn't apparent at the time, because the modest processing power of the Mac Plus was a good match for early SCSI hard drives.

Macs as well as hard-disk drives have steadily improved, however, and the Mac's SCSI implementation is now being pushed to the limit. All Macs prior to the Quadras use the 53C80 SCSI controller chip, which has a top speed of about 2 megabytes per second — far slower than that of some of the speedier hard-disk drives now entering the market.

Although the Quadras sport the more powerful 53C90 SCSI chip, they are still outpaced by the fastest SCSI drives available today. But don't blame the hardware alone. The real obstacle to faster SCSI throughput is Apple's SCSI Manager, system software that is due — long overdue, we believe — for the rewrite that Apple is now developing. The updated SCSI Manager will not only increase performance but will also allow for convenient features that have always been missing from the Mac, such as the ability to continue editing a document on one hard drive while formatting a separate hard drive off-line. Users of high-end Macs will finally see SCSI speeds and features long enjoyed by workstation users. The most dramatic effects of faster SCSI will be an increase in the performance of high-end graphics programs and network file servers.

An update of the SCSI standard, SCSI-2, has just been finalized. Two elements of this standard, dubbed Wide SCSI and Fast SCSI, theoretically have the capacity to raise SCSI throughput to as much as 40 megabytes per second. Not many drives will support this sustained transfer rate initially, but a few are already beginning to appear. As long as the SCSI standard can keep pace with the next generation of CPUs, SCSI will be with us for years to come.

— Jeffrey K. Milstead

It holds 128,000,000 bites...



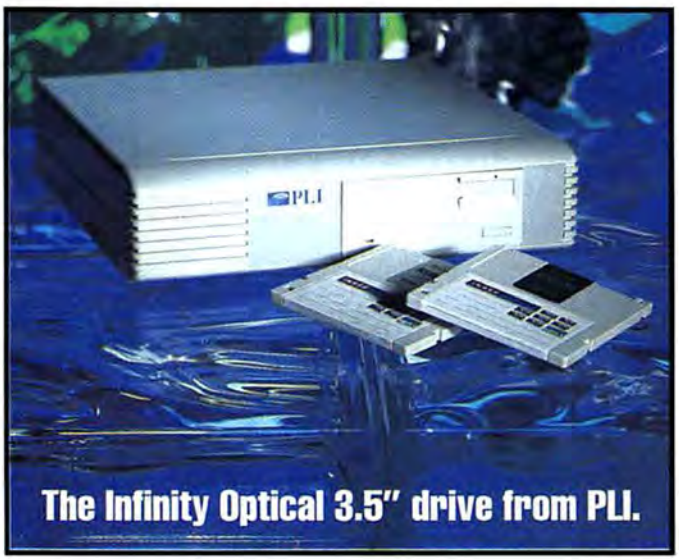
it looks like a floppy diskette...



it moves with SneakerNet...



but it's an Optical 3.5" diskette.



128MB rewritable optical cartridges...

They're a perfect size for DTP and prepress applications. Load them up with fonts and QuickTime™ movies. Or use them for backup and archiving.

...but don't confuse them with floppy diskettes!

Not only do they store almost 100 times more data, the 3.5" optical cartridges are much faster and much more reliable. With access times as low as 35ms and transfer rates comparable to that of many other removable drives, the 3.5" magneto-optical drives are fast enough for almost every application. In fact, most people could use one as their main drive without any noticable slowdown! And the technology is so secure, you never have to worry about losing data because of dropping a cartridge or bringing it through airport security checks.

CIRCLE 64 ON READER SERVICE CARD.

800. 288. 8754

Peripheral Land Incorporated
47421 Bayside Parkway Fremont, CA 94538
510. 657. 2211 • Fax 510. 683. 9713

The latest and best solution for transferring large amounts of data

A 3.5" optical disc is the only way that you can put dozens of Photoshop™ documents in your shirt pocket. And it's an ideal way to transport all kinds of data from one place to another. Or put it in a safe so it will stay in one place. Carry it by hand, send it by mail. You can have your data anywhere.

PLI, the leader in removable drive technology

Since the very beginning of the personal computer revolution, PLI has been providing high-quality storage products. Our removable drives are well-known in the industry for their excellent performance, good value and impeccable reliability. PLI is also a leader in service and support.

All products are trademarks or registered trademarks of their respective companies.

Optical technology you can really sink your teeth into.

SONY PLI

MUSE AD-34

Macs but they're also the fastest. The Duo 230 is outperformed only by the Quadras; the Duo 210 is a IIci-class machine.

But the real lure of the Duo series is not performance, it's versatility. The Duo is designed not only to be a powerful notebook computer but, with the help of a *docking station,* to be a desktop Mac as well. Because the Duos achieve their low weight by eliminating all but the necessities — they have no SCSI, no floppy drive, no video port — they connect to the outside world through a single 152-pin PDS. Into this PDS, you can plug the Duo Floppy Adapter or the Duo MiniDock, which offers all the ports you normally expect: an RJ-11 for an internal modem, a security slot, audio in/out, an HDI-30 SCSI port, two serial ports (one for an external modem, one for LocalTalk), DB-15 video out, one ADB port, an HDI-20 floppy drive, an AC-adapter port, and an on/off switch.

The PDS is also the Duos' interface with the desktop Duo Dock, which offers all the ports of the MiniDock — or of the back of any standard desktop Mac, for that matter. In addition, the Duo Dock includes a floppy drive; an optional hard-drive bay for a 3.5-inch, half-height hard drive; two full-sized NuBus slots; an open socket for an FPU (floating-point unit); and an option for additional VRAM for a maximum of 16-bit video on monitors as large as 16 inches. For additional security, the Duo Dock also offers keyed access: You can lock a PowerBook Duo either in or out.

The Choice Is Yours

Whether your Mac slips into your briefcase or stands on the floor next to your desk, the choice of where to buy it — and the peripherals that accompany it — can be as important as the choice of which Mac to buy. Don't assume that a traditional full-service dealer will give you the best value for your dollar. Dealers can help analyze your needs and recommend the appropriate system for the applications you choose, but you pay — in higher prices — for these niceties.

Two recent trends in computer sales are the so-called superstores — the CompUSA and Bizmart chains, for example — and regular consumer outlets — such as Sears, Office Club, and Circuit City. The consumer outlets sell only Apple's Performa series, ordinary Macs that have been specially configured with software and hardware bundles and with extra service and support to make them more attractive to "one stop" shoppers.

In superstores and consumer outlets, you can't count on getting much expert advice from salespeople, but because you're a *MacUser* reader who has just digested this article, you're probably better informed and more up-to-date than most salespeople are. Before you go shopping, download Which Mac Should I Buy? (WCHMAC.SEA), a HyperCard-based summary of this article, from Library 7 (Reference) in the Download & Support Forum of ZiffNet/Mac (*MacUser*'s on-line service), and match your needs with its suggestions (see the "HyperHelp" sidebar). In fact, give a copy of the stack to the salesperson; it never hurts to be an ambassador of knowledge.

And as mentioned earlier, don't neglect mail order — known in these euphemistic times as direct marketing — when you shop for hard drives, printers, and other peripherals. Great deals can be found, and the better outfits offer service and support that rival those of the best mom-and-pop computer dealers.

However and whatever you choose to buy, rest assured that your new Mac will be a well-built machine that will be useful for years. Mac models may come and go, but many a Macintosh — the full name of that original 128K 68000-based machine that took us all by storm in 1984 — is still providing its users with all the power they will ever need.

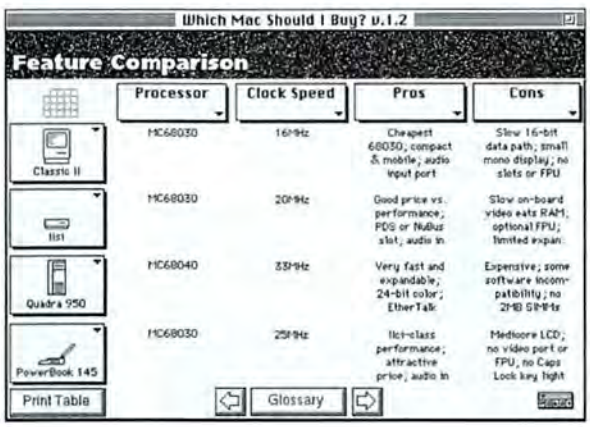
Rik Myslewski is *MacUser*'s executive editor. Jeff Pittelkau and Jeffrey K. Milstead contributed to this report.

continues ►

HyperHelp

For more help in deciding which Mac is right for you, dial up ZiffNet/Mac on CompuServe and download Which Mac Should I Buy? This HyperCard decision stack will help match your needs to your ideal Mac. Developed by HyperCard expert Danny Goodman with the help of the MacUser Labs staff, Which Mac Should I Buy? leads you through the critical questions you need to answer before you step into a dealer's showroom. The stack contains the complete technical specs of all current Mac CPUs, including the Quadras and the PowerBooks, and is available exclusively through ZiffNet/Mac — just download the file WCHMAC.SEA from Library 7 (Reference) of the Download & Support Forum.

— Ben Templin



Which Mac Should I Buy? provides both advice and information to help you choose the right Mac.



PC To Mac File Exchange Without Translators Is Like A Foreign Film Without Subtitles.

Sharing files between PCs and Macs is no longer a luxury, it is a necessity. But it doesn't have to be a foreign concept.

Lots of products on the market claim to solve your problems of sharing files across platforms, but take a careful look before you buy. Some, such as disk mounting utilities only give you a partial solution; and when your file appears on screen, you get a big surprise. You can't read a word of it - not your text, not your formatting - it looks like garbage.



You see, transferring your files only gets half the job done. What you need to finish the job is translation. What good is it to simply transfer a file from a PC if you can't decipher it once it hits your Mac?

MacLinkPlus from DataViz is the *total solution* for both file transfer and translation.

It's been on the market since 1984 and has led the way in bridging the gap between PCs and Macs. With over 600 translation combinations for the most popular word processing, spreadsheet, database and graphics applications, you'll find it the strongest translation product with the widest breadth of translation possibilities anywhere!

MacLinkPlus is the solution to virtually any problem you may encounter in moving files between PCs and Macs. And being able to read them - with their formatting intact - once they get there.

For more information, call DataViz today at (800) 733-0030. And be sure to ask about our new multi-pack pricing. We're the one translation company that won't leave you sitting alone in the dark.

DATAVIZ™

THE DATABRIDGE SPECIALISTS

MacLink Plus - Freedom To Use The File You Choose

All product names are trademarks or registered trademarks of their respective holders. DataViz, Inc. 55 Corporate Drive, Trumbull, CT 06611 (203) 268-0030

CIRCLE 172 ON READER SERVICE CARD.

Table 3: Features of the Current Mac Family

● = yes ○ = no	Consumer  Performa 200	 Performa 400	 Performa 600	 Performa 600 CD
List price (MB RAM/drive)	NA*	NA*	NA*	NA*
Street price (MB RAM/drive)	$1,250†	$1,450†	$2,000†	$2,500†
CPU				
Microprocessor	68030	68030	68030	68030
Floating-point unit	none	none	optional	optional
Data bus	16 bits	16 bits	32 bits	32 bits
Microprocessor clock speed	16 MHz	16 MHz	32 MHz	32 MHz
RAM caches	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030
RAM on motherboard	2 MB	4 MB	4 MB	4 MB
SIMM slots	2	2	4	4
Memory-management unit	built in to 68030	built in to 68030	built in to 68030	built in to 68030
Video	9-inch internal CRT	internal VRAM video controller	internal VRAM video controller	internal VRAM video controller
Ports				
ADB	single	single	dual	dual
Audio out	●	●	●	●
Audio in	●	●	●	●
Serial (modem)	●	●	●	●
LocalTalk	●	●	●	●
EtherTalk	○	○	○	○
Video	○	●	●	●
SCSI	●	●	●	●
External floppy drive	●	○	○	○
Slots				
Processor direct	○	●	●	●
Cache card	○	○	○	○
NuBus	○	○	3	3
Other				
Virtual-memory support	●	●	●	●
Size (L x W x H)	11.2 x 9.7 x 13.2 in.	15 x 12.2 x 3 in.	16.5 x 13 x 6 in.	16.5 x 13 x 6 in.
Weight	17.1 lb	8.8 lb	25 lb	25 lb

*Apple does not publish list prices for the Performa series.

†This estimate was given by an Apple spokesperson at product release.







It can pick a fly out of your pea soup. It never faints at the sight of blood. It can digest a whale in 60 seconds.

While these may not be the qualities you want in a dinner date, they may be precisely what you're looking for in a color scanner.

If so, meet the new UMAX UC840. Built using the same high-quality technologies that recently earned our other color scanners top marks from both *MacUser* and *PC Computing*.

The UC840 renders halftones, line art and text with hard-to-believe clarity and detail (800 × 400 dpi, to be exact). In fact, through software interpolation, you can get up to 1600 × 1600 dpi! Details that competitive scanners can lose sight of — like the wings of that annoying little fly — come through with particular clarity.



With the optional UMAX Transparency unit, you'll get maximum accuracy and flexibility.

Revolutionary one-lamp scanning and autocalibration systems virtually guarantee that colors remain absolutely true to the original. (Blue blood may be fine for aristocrats, but the rest of us still prefer a nice, bright red.)

We'd also like to make a point about speed, if you have a minute. Because that's about all it takes the UC840 to scan a 4 × 5-inch color image (other scanners can take two to five times as long).

And if you have a few more seconds, we'll give you a few more important facts: The dynamic range is wide enough to read the most subtle differences between 16.8 million 24-bit colors, and 256 shades of gray. It's both Macintosh and PC-compatible. And image editing software is included, free of charge. If that weren't enough, the UC840 is incredibly easy to maintain. We even offer 48-hour turn around in the unlikely case repairs are required.

Call **800-562-0311** today, and we'll tell you where to catch a demonstration of the new UC840. (Feel free to bring along your dinner date.)

UMAX®

Maximize your image.™

©1992 UMAX Technologies, Inc. 3170 Coronado Drive, Santa Clara, CA 95054. 408/982-0771, Fax 408/982-0776. UMAX is a registered trademark of UMAX Data Systems, Inc. "Maximize Your Image" is a trademark of UMAX Technologies, Inc. Other company names and product names are trademarks of their respective companies.

CIRCLE 145 ON READER SERVICE CARD.

Table 3: Features of the Current Mac Family, continued

● = yes ○ = no	Low-cost  Classic	 Classic II	 LC II
List price (MB RAM/drive)	§	$1,079 (4/40)◊ $1,209 (4/80)◊	$1,239 (4/40)◊ $1,349 (4/80)◊
Street price (MB RAM/drive)	$825 (1/SuperDrive) $1,200 (2/40)	$900 (4/40) $1,000 (4/80)	$1,000 (4/40) $1,250 (4/80)
CPU			
Microprocessor	68000	68030	68030
Floating-point unit	none	none	none
Data bus	16 bits	16 bits	16 bits
Microprocessor clock speed	8 MHz	16 MHz	16 MHz
RAM caches	none	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030
RAM on motherboard	1 MB	2 MB	4 MB
SIMM slots	0**	2	2
Memory-management unit	none	built in to 68030	built in to 68030
Video	9-inch internal CRT	9-inch internal CRT	internal VRAM video controller
Ports			
ADB	single	single	single
Audio out	●	●	●
Audio in	○	●	●
Serial (modem)	●	●	2
LocalTalk	●	●	●
EtherTalk	○	○	○
Video	○	○	●
SCSI	●	●	●
External floppy drive	●	●	○
Slots			
Processor direct	○	○	●
Cache card	○	○	○
NuBus	○	○	○
Other			
Virtual-memory support	○	●	●
Size (L x W x H)	11.2 x 9.7 x 13.2 in.	11.2 x 9.7 x 13.2 in.	15 x 12.2 x 3 in.
Weight	16 – 17.1 lb	16 – 17.1 lb	8.8 lb

§This model was dropped from the Apple price list as this article went to press.

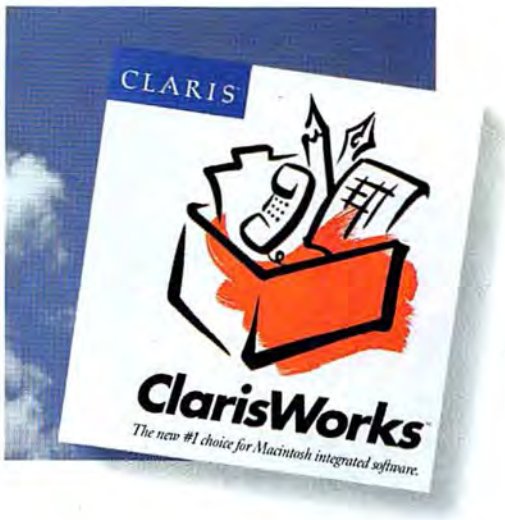
◊This price is as listed on the Apple price list of September 28, 1992.

**Two SIMM sockets and an additional 1 megabyte of RAM are included on an add-in card in the 2-megabyte configuration.

Few things have taken off so fast.







Out of the blocks to number one in a scant six months. Few things this side of NASA have ever experienced this kind of blast-off.

Because nobody else has figured out how to combine word processing, graphics, spreadsheet, charting, database, and communications quite like ClarisWorks.™ No awkward modules, no hidden speed traps.

Simply, ClarisWorks has caught on so fast because it's so easy to catch on to. All the tools you need are always right there. And because it doesn't devour memory, ClarisWorks still leaves a PowerBook with room for volumes.

Among industry experts, regard for ClarisWorks has obviously soared.

But don't just take our word for it. "ClarisWorks is now the yardstick against which other integrated software programs will be measured," lauds *MacWeek*. "A standout...a breakthrough in price and capability," raves *MacUser*.

Of course, the best way to see why ClarisWorks soars above the rest is to strap yourself in at your authorized Claris dealer.

Just call us at 1-800-544-8554, ext. 36.

Then get your hands on ClarisWorks. And blast through work.

CLARIS

Simply powerful software.™

©1992 Claris Corporation. All rights reserved. In Canada, call 1-800-668-8948, ext. 48. Claris is a registered trademark, ClarisWorks and Simply powerful software are trademarks of Claris Corporation. All other product names are trademarks or registered trademarks of their respective owners.

SCAN THE SEVEN WONDERS OF THE WORLD.

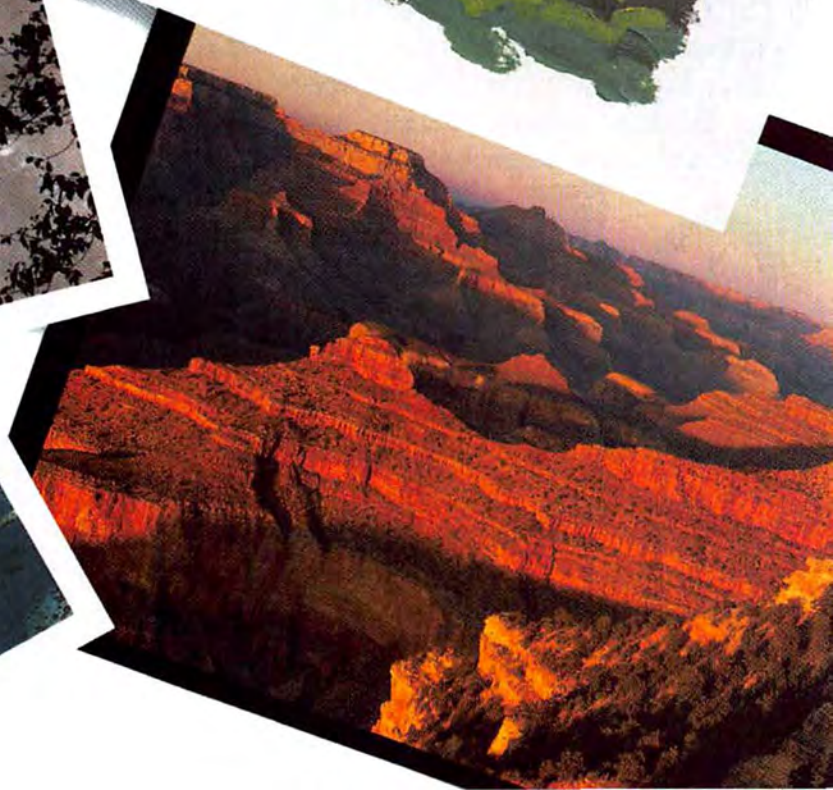














WITH THE EIGHTH.



The Agfa family of scanners: Horizon, Arcus, and Focus.

It's no wonder so many companies today are choosing Agfa scanners.

From desktop publishing to high quality production prepress and graphic arts, Agfa offers a family of high-quality scanners that are not only affordable and easy to use, but designed for every production environment.

A WONDER TO WORK WITH.

Whether you choose our affordable Arcus™ color or Focus desktop scanners or our exceptionally fast Horizon® color prepress scanner, you'll be getting a scanner that's the highest quality in its class.

Agfa scanners offer a range of features designed to meet your specific application needs. Like scanning resolution up to 1200 dpi. Multiple scanning modes from black and white to color. Transparency modules. Unique light sources. And image sampling up to 12 bits per color.

Built for speed, flexibility and increased productivity, Agfa scanners also offer the ability to work with reflective and transparent art. Automatic exposure and density control. Sharpness enhancement. White balance calibration. Exceptional dynamic range. And gamma and tone curve correction.

In addition, we offer a full complement of drivers for MAC®, PC®, and SUN® platforms and Agfa's professional imaging software.

AT AGFA, WONDERS NEVER CEASE.

It's not surprising our scanners help you reach new levels of image control and accuracy. Consider the company behind them.

For over 100 years, Agfa's photographic and prepress products have provided the graphic arts industry with innovative, productive solutions. It's this long-term understanding of graphic arts needs that has enabled us to build a family of scanners and a service track record second to none.

We'd like to show you Agfa's family of high-quality scanners. Call us today at 1-800-685-4271.

Whatever your expertise, whatever your scanning needs, at Agfa, we can do wonders for your image.

AGFA Agfa

The complete picture.

AGFA and the Agfa rhombus are registered trademarks of Agfa-Gevaert AG. Arcus is a trademark of Agfa-Gevaert N.V., Mortsel-Belgium. Horizon is a registered trademark of Agfa-Gevaert N.V., Mortsel-Belgium. MAC is a registered trademark of Apple Computer Inc. PC is a registered trademark of International Business Machines Corporation. SUN is a registered trademark of SUN Microsystems Inc.

CIRCLE 180 ON READER SERVICE CARD.

Table 3: Features of the Current Mac Family, continued

● = yes ○ = no	Modular  IIsi	 IIvx	 IIci
List price (MB RAM/drive)	$1,729 (3/40)◊ $1,999 (5/80)◊	$3,200 (4/80) 512K VRAM†† $3,500 (5/80) w/ CD-ROM and 1 MB of VRAM††	$2,539 (5/SuperDrive)◊ $2,719 (5/80)◊ $3,089 (5/230)§
Street price (MB RAM/drive)	$1,450 (3/40) $1,650 (5/80)	NA	$2,150 (5/SuperDrive) $2,400 (5/80) $2,750 (5/230)
CPU			
Microprocessor	68030	68030	68030
Floating-point unit	68882§§	68882	68882
Data bus	32 bits	32 bits	32 bits
Microprocessor clock speed	20 MHz	32 MHz	25 MHz
RAM caches	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030, 32K on motherboard	256-byte (instruction) in 68030, 256-byte (data) in 68030, 32K on cache card
RAM on motherboard	1 MB	4 MB	none
SIMM slots	4	4	8
Memory-management unit	built in to 68030	built in to 68030	built in to 68030
Video	internal RAM video controller	internal VRAM video controller	internal RAM video controller
Ports			
ADB	single	dual	dual
Audio out	●	●	●
Audio in	●	●	○
Serial (modem)	●	●	●
LocalTalk	●	●	●
EtherTalk	○	○	○
Video	●	●	●
SCSI	●§§	●	●
External floppy drive	●	○	●
Slots			
Processor direct	NA	●	●
Cache card	○	○	● (with 32K cache card)
NuBus	1	3	3
Other			
Virtual-memory support	●	●	●
Size (L x W x H)	14.9 x 12.4 x 4 in.	16.5 x 13 x 6 in.	14.4 x 11.9 x 5.5 in.
Weight	10 lb	25 lb	13.6 lb

§This model was dropped from the Apple price list as this article went to press.

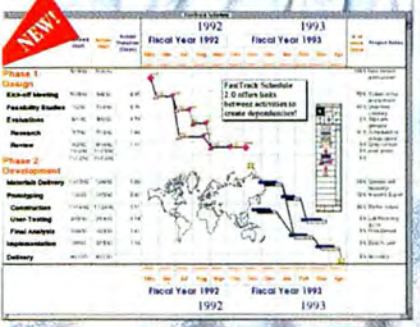
◊This price is as listed on the Apple price list of September 28, 1992.

††This price was given by Apple one month prior to the October 19, 1992, product release; the street price was not yet available.

§§The IIsi's single expansion slot accepts either an adapter card with a PDS socket or an adapter card with a NuBus slot. Apple's adapter cards both include a 68882 FPU.

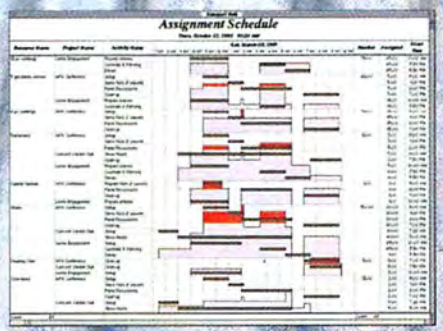
Project Solutions!

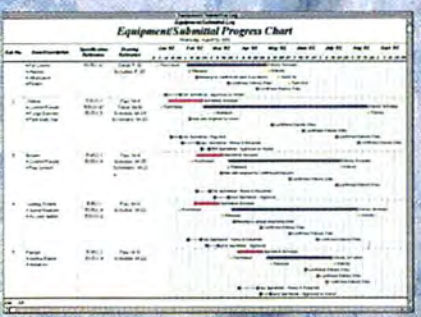




FastTrack Schedule™ *version 2.0* offers simple planning and scheduling in a Gantt chart format! Just draw in timeline bars and milestones and enhance for presentations! Create activity breakdowns with the outliner and take advantage of FastTrack Schedule's high powered project management tools when more power is called for. Great for importing and exporting, too! FREE Demo kit! List price: $279.

FastTrack Resource™ *version 1.0* is a resource allocation tool that offers an easy-to-use database format for the tracking of Who, What, Where, When and How Many a project manager needs to know when assigning resources to projects and activities. Flexible reports reveal which resources are available, or even over allocated in a variety of formats that include histograms, project Gantt charts and combination reports. $10 Demo kit! List Price: $249.





AEC Information Manager™ is a straight forward database that gives the manager, administrator or project team all the tools they need to track any type of status oriented information! Creating custom databases is a snap with AEC's preformatted field types, and creating all kinds of columnar reports is even easier! Information can be sorted at multiple levels, and simple and complex searches can be acheived effortlessly. Whether the project is complicated or trouble free, AEC Information Manager can offer the tracking system to organize it! $25 Demo kit!

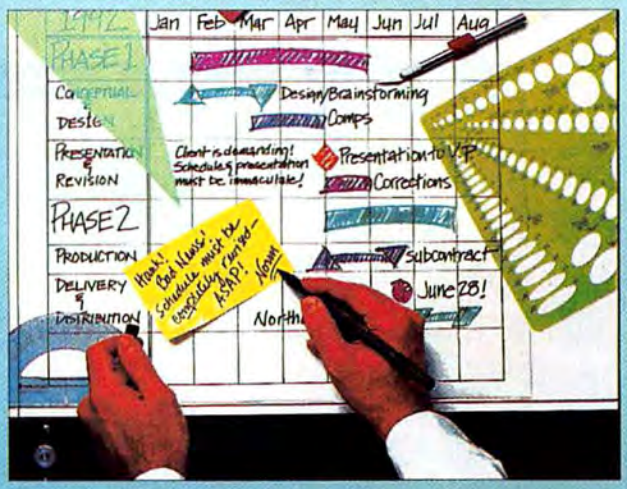
Order your new demo kits now! Please call (800) 346-9413 or (703) 450-1980

CIRCLE 101 ON READER SERVICE CARD.

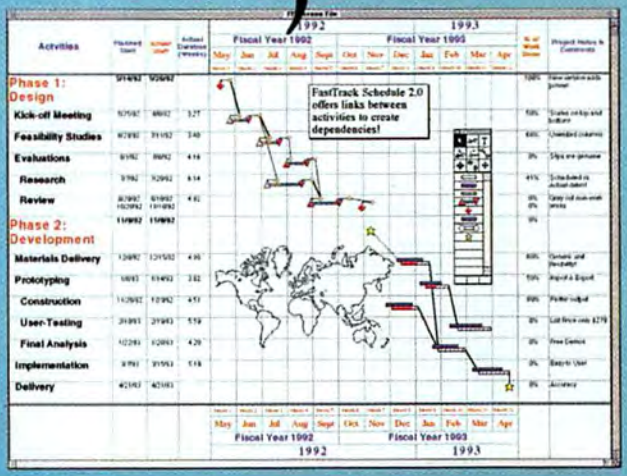
AEC SOFTWARE
Sterling, Virginia USA

New! Version 2.0 FREE Demo

Schedule



Projects



as fast as you can think of them.

FastTrack Schedule™ 2.0 now gives you even more power to schedule anything, fast. Create custom Gantt charts for presentations that include graphics, labels, notes, titles, borders and real dates!

Walk away from tedious and old fashioned scheduling techniques. ***FastTrack Schedule 2.0*** offers a modern day solution for busy managers who need to get the project underway, and review progress quickly. Forget the frustration, scheduling doesn't have to be a nightmare.

Order a new FREE FastTrack Schedule 2.0 demo kit now and we'll ship it out within 24 hours!
(800) 346-9413 or (703) 450-1980

AEC SOFTWARE

CIRCLE 100 ON READER SERVICE CARD.

Table 3: Features of the Current Mac Family, continued

● = yes ○ = no	Notebook  PowerBook 100	 PowerBook 145	 PowerBook 160	 PowerBook 170
List price (MB RAM/drive)	§ $2,399 (4/40)◊ $2,799 (4/80)◊	$2,399 (4/40)◊ $2,799 (4/80)◊	$2,699 (4/40)†† $3,099 (4/80)†† $3,499 (4/120)††	$4,599 (4/40) w/ data/fax modem◊ $4,299 (4/40)◊ $4,599 (4/80)◊
Street price (MB RAM/drive)	$700 (4/40) $750 (4/40) w/ external floppy drive	$2,000 (4/40) $2,350 (4/80)	NA	$3,875 (4/40 w/ data/fax modem) $3,650 (4/40) $3,950 (4/80)
CPU				
Microprocessor	68000	68030	68030	68030
Floating-point unit	none	none	none	68882
Data bus	16 bits	32 bits	32 bits	32 bits
Microprocessor clock speed	16 MHz	25 MHz	25 MHz	25 MHz
RAM caches	none	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030
RAM on motherboard	2 MB	2 MB	4 MB	2 MB
SIMM slots	0◊◊	0◊◊	0***	0◊◊
Memory-management unit	none	built in to 68030	built in to 68030	built in to 68030
Video	9-inch Supertwist LCD	9.8-inch Supertwist LCD	9.8-inch Supertwist LCD	9.8-inch thin-film transistor (active matrix)
Ports				
ADB	single	single	single	single
Audio out	●	●	●	●
Audio in	○	●	●	●
Serial (modem)	●†††	●	●	●
LocalTalk	●	●	●	●
EtherTalk	○	○	○	○
Video	○	○	●	○
SCSI	●	●	●	●
External floppy drive	●	○	○	○
Slots				
Processor direct	○	○	○	○
Cache card	○	○	○	○
NuBus	○	○	○	○
Other				
Virtual-memory support	○	●	●	●
Size (L x W x H)	11 x 8.5 x 1.75 in.	11.25 x 9.3 x 2.25 in.	11.25 x 9.3 x 2.25 in.	11.25 x 9.3 x 2.25 in.
Weight	5.1 lb	6.8 lb	6.8 lb	6.8 lb

§This model was dropped from the Apple price list as this article went to press.

◊This price is as listed on the Apple price list of September 14, 1992.

††This price was given by Apple one month prior to the October 19, 1992, product release; the street price was not yet available.

◊◊This PowerBook has a single socket for a daughtercard containing 2, 4, or 6 megabytes of pseudostatic RAM; it does not have a SIMM slot.

***This PowerBook can be upgraded to a maximum of 12 megabytes; upgrade information and pricing were not available at press time.

†††This PowerBook has an RJ-11 jack built in for internal modem.

XEROX

They wanted to bring color copying in-house. We've just opened the door.



What we put together.

The Xerox 5775 Digital Color Copier. Increased color document productivity. Direct Xerox service, the industry's only dedicated toll-free support line and the Xerox Total Satisfaction Guarantee.



Tammy M. Johnson
Xerox Account Representative



Color documents were always of supreme importance to the people at this world-famous movie and publishing company. In fact, they spent thousands per month on outside color copying services. They wanted their own machine but no one had put together the kind of performance and support they needed. Then Tammy Johnson and the Xerox team introduced them to the Xerox 5775 Digital Color Copier.

They were all impressed by the color quality and speed of the Xerox 5775. And the numbers people were especially attracted to the low costs per copy and high reliability figures. Then the creative people got their hands on it.

They found the color touch screen so easy to use that it opened up a whole new world of creative possibilities.

And they were pleased to learn that soon they could fully network the Xerox 5775 to Macs and IBM PC-compatibles.

The only question that remained was service and support. Xerox had the answer. One person to call anytime for anything, direct Xerox service for all components and the Xerox Total Satisfaction Guarantee.

If you want to put the power of color to work in your business, open the door to Xerox. We'll put it together for you. For more information on the Xerox 5775, call 1-800-TEAM-XRX, ext. 702.

Xerox
The Document Company

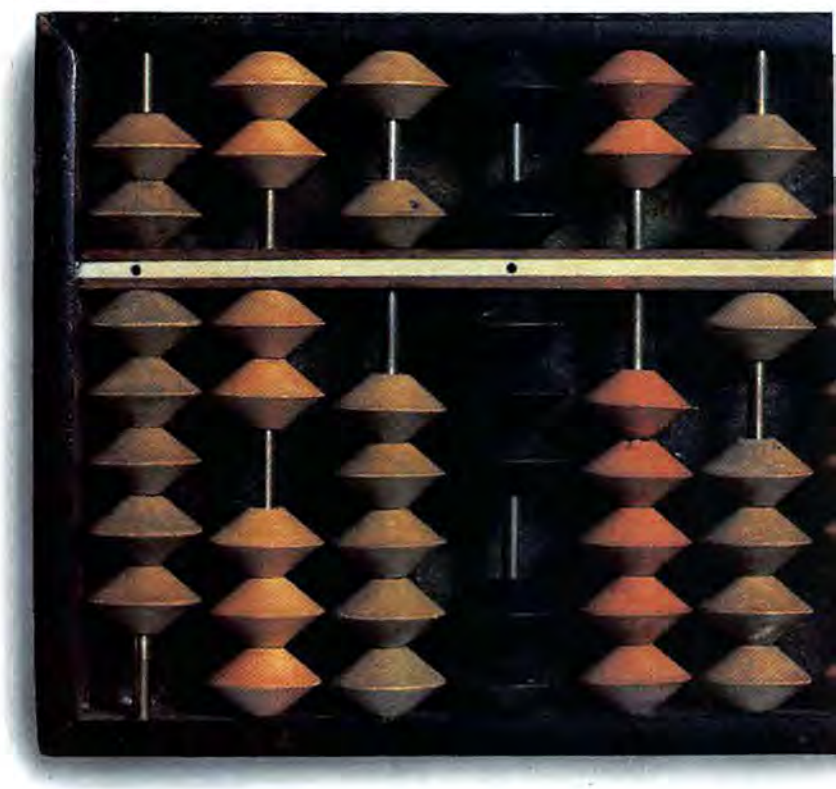
USA XEROX

© 1992 XEROX CORPORATION. XEROX® The Document Company and Document Machines are trademarks of XEROX CORPORATION. 36USC 380

CIRCLE 246 ON READER SERVICE CARD.

It's been centuri with number

The abacus first appeared around 500 or 600 B.C. Some say it was invented by the Egyptians. Others think it was the ancient Chinese. But whoever it was, they had the right idea: create a simple, easy-to-use device for working with numbers, and people will be a lot more productive.



Introducing 1-2-3 for Macintosh Release 1.1: the easiest-to-use Mac® spreadsheet.

Like the abacus, 1-2-3® for Macintosh® was inspired by simplicity, and Release 1.1 is even simpler to use. Now you can drag-and-drop data between worksheets. And with new SmartSum, you can simultaneously sum multiple ranges. Plus, Copy Down, Copy Right and Copy Back enable you to copy labels or formulas across columns, rows or 3D worksheets.



New graphing enhancements in Release 1.1 let you turn your numbers into graphic presentations faster and easier than ever.

Of course, 1-2-3 is still the only spreadsheet that gives you In-Cell™ editing, so you can enter a formula directly into a cell for faster, easier editing.

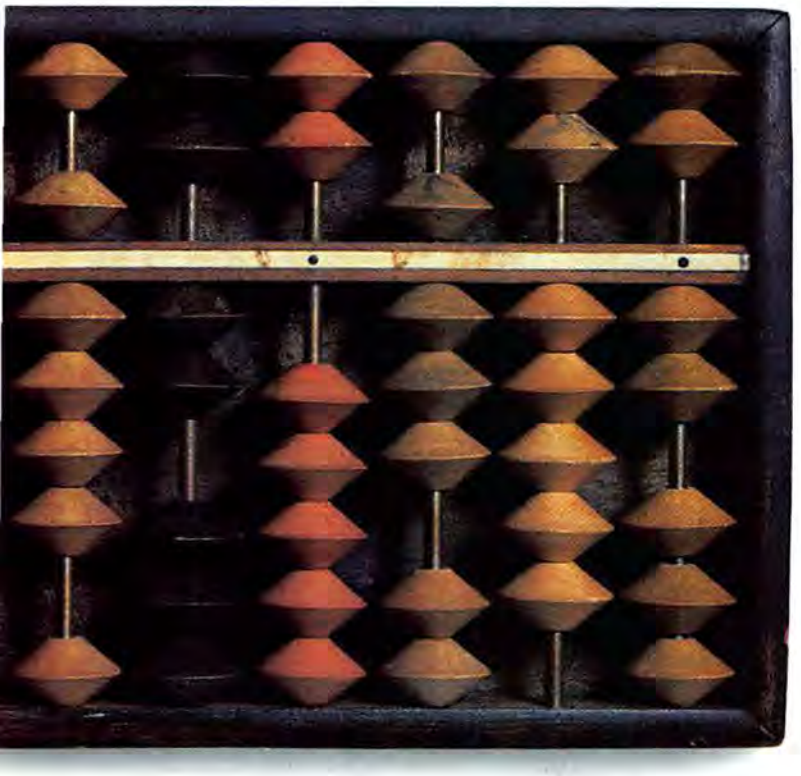
The easiest graphing of any Mac spreadsheet.

1-2-3's remarkable graphing and charting capabilities make it the best Macintosh spreadsheet for presenting data. Because unlike Microsoft® Excel, 1-2-3 lets you store your graphs and charts in the same file as your worksheets. So you can manipulate data, text and graphics all in the same file with *one* set of menus and only *one* set of tools. And you can make one-click graph type changes, pull objects across window boundaries to the

*Ask your Apple Authorized Retailer about Apple's new "Easy Way" bundle, which gets you 1-2-3 and 3 other leading software products at a great price. **In Canada call **1-800-GO-LOTUS.** ***Please have your credit card and produc

Lotus Development Corporation. Microsoft is a registered trademark of Microsoft Corporation. Mac and Macintosh are registered trademarks of Apple Computer, Inc. The Apple logo is a registered trader

es since working s was this easy.



True 3D makes organizing and analyzing data fast and easy.

Only with the true 3D capabilities of 1-2-3 can you easily consolidate multiple spreadsheets into *one* file without having to link the files. 3D allows all spreadsheet functions to be performed *through* multiple worksheets just as they are performed down rows and across columns.

The easiest transition from DOS to Mac.

For DOS spreadsheet users moving to Macintosh, 1-2-3 is the only way to go. 1-2-3's traditional Classic® Menu makes it easier for you to access familiar 1-2-3 commands and to run macros already written for 1-2-3. And only 1-2-3 offers cross-platform capabilities, so you can work more efficiently and productively with the 18 million other 1-2-3 users across all major platforms.

worksheet, dynamically link chart titles to cell contents, and shrink charts so they appear as small icons on your worksheet.

Now Release 1.1 takes these graphing capabilities even further. Like the ability to paste pictures behind your graphs, stack pictures to form bar charts, and view your graph source data by scrolling up the bottom edge of your graph. You can even resize chart text simply by using the mouse to drag the handles.

1-2-3 for Macintosh. All in all, it's the easiest way to work with numbers to come along in centuries. To find out for yourself, buy a copy from your Lotus Authorized Reseller,* and try it for 60 days with a full money-back guarantee direct from Lotus.® Or call **1-800-TRADEUP, ext. 7245**** for a free working model. (Excel users be sure to ask about our special upgrade price.***)



Lotus **1-2-3 for Macintosh**

e ready when you call. © 1992 Lotus Development Corporation. All rights reserved. Lotus and 1-2-3 are registered trademarks and In-Cell is a trademark of Lotus Development Corporation. Classic is a registered trademark licensed to pple Computer, Inc., used under license. This product includes Adobe Type Manager. Adobe Type Manager and the ATM logo are registered trademarks in the United States of Adobe Systems, Incorporated.

Table 3: Features of the Current Mac Family, continued

● = yes ○ = no	Notebook  PowerBook 180	 PowerBook Duo 210	 PowerBook Duo 230
List price (MB RAM/drive)	$4,299 (4/80)†† $4,699 (4/120)††	$2,499 (4/80)††	$2,899 (4/80)†† $3,299 (4/120)††
Street price (MB RAM/drive)	NA	NA	NA
CPU			
Microprocessor	68030	68030	68030
Floating-point unit	68882	none	none
Data bus	32 bits	32 bits	32 bits
Microprocessor clock speed	33 MHz	25 MHz	33 MHz
RAM caches	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030	256-byte (instruction) in 68030, 256-byte (data) in 68030
RAM on motherboard	4 MB	4 MB	4 MB
SIMM slots	0***	0§§§	0§§§
Memory-management unit	built in to 68030	built in to 68030	built in to 68030
Video	9.8-inch thin-film transistor (active matrix)	9.8-inch Supertwist LCD	9.8-inch Supertwist LCD
Ports			
ADB	single	single◊◊◊	single◊◊◊
Audio out	●	●****	●****
Audio in	●	●****	●****
Serial (modem)	●	●****	●****
LocalTalk	●	●	●
EtherTalk	○	●††††	●††††
Video	●	●****	●****
SCSI	●	●****	●****
External floppy drive	○	●◊◊◊	●◊◊◊
Slots			
Processor direct	○	●	●
Cache card	○	○	○
NuBus	○	○	○
Other			
Virtual-memory support	●	●	●
Size (L x W x H)	11.25 x 9.3 x 2.25 in.	10.5 x 8.5 x 1.5 in.	10.5 x 8.5 x 1.5 in.
Weight	6.8 lb	4.2 lb	4.2 lb

††This price was given by Apple one month prior to the October 19, 1992, product release; the street price was not yet available.

***This PowerBook can be upgraded to a maximum of 12 megabytes; upgrade information and pricing were not available at press time.

§§§This PowerBook can be upgraded to a maximum of 20 megabytes; upgrade information and pricing were not available at press time.

◊◊◊To add this port, this PowerBook requires a MiniDock, a Duo Dock, or a Floppy Adapter.

****To add this port, this PowerBook requires a MiniDock or a Duo Dock (RJ-11 is built in for internal modem, however).

††††To add this port, this PowerBook requires an Ethernet NuBus card in the Duo Dock.

PowerBook PowerProducts



Buy Extra Time!

Auxiliary Power Pack, Model APP-2

Designed for all Powerbook 100 Series, the APP-2 extends PowerBook operation up to four times that of the standard battery. Ideal for long flights or anytime you need extended use. Can be recharged via 115 VAC transformer, 12 VDC source or the Apple universal AC adapter for worldwide recharging.

Only $189.95

Includes AC & 12V DC Power Adapters

Get the Most from Your Battery!

Charger/Conditioner, Model BC-4070

A must for all Model 140 & 170 PowerBook users. It automatically cycles the battery over it's full range to correct and prevent loss of running time caused by the memory effect of nicad batteries.

Only $189.95

Includes AC & 12V DC Power Adapters

Charge Your Battery While on the Road!

Automobile Power Adapter, Models PB-1 & PB-2

Power your PowerBook from a standard auto lighter socket or charge the internal battery between job sites or sales calls. A red indicator light insures visual function of unit at all times. Small in size, the black extruded aluminum housing is compact and rugged.

Only $99.95

We make your portable more portable... Order Today!

800-659-5956

Visa and Mastercard Accepted

Other PowerBook Products Available, Call or write for futher information.



Lind Electronic Design
6414 Cambridge Street
Minneapolis, MN 55426
Phone: (612) 927-6303
Fax: (612) 927-7740

CIRCLE 45 ON READER SERVICE CARD.

Table 3: Features of the Current Mac Family, cont.

● = yes ○ = no	68040-based  Quadra 700	 Quadra 950
List price (MB RAM/drive)	$4,219 (4/SuperDrive)◊ $4,669 (4/80)◊ $5,039 (4/230)◊ $5,849 (4/400)◊	$7,359 (8/230)◊ $8,169 (8/400)◊
Street price (MB RAM/drive)	$3,300 (4/SuperDrive) $3,700 (4/80)	$5,900 (8/230) $6,100 (8/400)
CPU		
Microprocessor	68040	68040
Floating-point unit	subset of 68881/2 built in to 68040	subset of 68881/2 built in to 68040
Data bus	32 bits	32 bits
Microprocessor clock speed	25 MHz	33 MHz
RAM caches	4K (instruction) in 68040 4K (data) in 68040	4K (instruction) in 68040 4K (data) in 68040
RAM on motherboard	4 MB	none
SIMM slots	4	16
Memory-management unit	built in to 68040	built in to 68040
Video	internal VRAM video controller	internal VRAM video controller
Ports		
ADB	dual	single
Audio out	●	●
Audio in	●	●
Serial (modem)	●	●
LocalTalk	●	●
EtherTalk	●	●
Video	●	●
SCSI	●	●
External floppy drive	○	○
Slots		
Processor direct	●	●
Cache card	○	○
NuBus	2	5
Other		
Virtual-memory support	●	●
Size (L x W x H)	14.4 x 5.5 x 11.9 in.	20.6 x 8.9 x 18.6 in.
Weight	13.6 lb	36.75 lb

◊This price is as listed on the Apple price list of September 28, 1992.

Table 3 Criteria

Microprocessor — The central processing unit, or *CPU*, that manages the Mac and all of its applications.

Floating-point unit — In Macs with 68030 microprocessors, an optional chip that adds high-powered number-crunching capability.

Data bus — The width of the data path between RAM and the microprocessor, in bits.

Microprocessor clock speed — The speed of the timing signal that synchronizes internal computations in the CPU.

RAM caches — Caches that contain the most-recently-used data, where it can be accessed quickly by the microprocessor.

RAM on motherboard — The amount of nonremovable RAM that's soldered onto the motherboard.

SIMM slots — The number of SIMM connectors available for RAM.

Memory-management unit — The location of the MMU (if any), which is necessary to support virtual memory and A/UX.

Video — The primary display device supported.

ADB — Whether the Mac has single or dual Apple Desktop Bus ports for keyboards, mice, and so on.

Audio out — Does the Mac have a built-in audio-out jack?

Audio in — Does the Macintosh support monophonic audio input and digitization?

Serial (modem) — Does the Mac have a port for connecting an external modem or other serial device?

LocalTalk — Does the Mac have a port for connecting a LocalTalk network that can be used as a second serial port when LocalTalk is made inactive?

EtherTalk — Does the Macintosh have a port for connecting to an Ethernet network?

Video — Does the Mac have an external video connector?

SCSI — Does the Mac have a connector for SCSI devices?

External floppy drive — Does the Mac have a connector for a second floppy-disk drive?

Processor direct — Does the Macintosh have a connector for add-in boards that directly address the Macintosh's microprocessor?

Cache card — Does the Mac have a connector for a RAM-cache card (included with the IIci)?

NuBus — The number of slots available for NuBus expansion cards.

Virtual-memory support — Does the Mac support virtual memory under System 7?

Efi

Perfect Color in Minutes



"Scanned in too light"



"Too blue, use the color filter"



"No color, pump up the saturation"



"Perfect. Great proof. Print it."

"Cachet ... is the most important piece of desktop publishing software to hit the market since Aldus PageMaker."

Publish, August 1992



WHATEVER THE MONITOR. WHATEVER THE IMAGE. FOR THE FIRST TIME EVER YOUR DESKTOP COLOR PROOF WILL MATCH YOUR FINAL PRINT.

EFI'S *CACHET COLOR EDITOR* PROMISES YOU PERFECT COLOR IN MINUTES!

COLOR DESKTOP PUBLISHING WILL NEVER BE THE SAME.

Cachet™

Color Editor



Finally. Professional desktop color for the first time ever. Intuitive. Powerful. Expert color editing and separations. Early proofs. Make deadlines. Make dinner on time.

Call 1-800-285-4565 to order Cachet or find the reseller nearest you.

EFICOLOR

Cachet includes EfiColor™ Color Management System

Electronics for Imaging, Inc.

Cachet system requirements: Mac LC with math coprocessor, Mac II or Quadra family. Hard disk, 5MB RAM (8MB recommended). 8 to 24-bit video card. Color monitor, 13" or larger. System 6.05 or later. This ad was produced using Cachet.

WINNER SEYBOLD 92 SEMINARS AWARD FOR EXCELLENCE

CIRCLE 73 ON READER SERVICE CARD.



Now Your Mac Does Windows Too.



New SoftPC® with Windows™ not only lets your Macintosh run Windows applications, it's been accelerated to really shine with Microsoft Windows 3.1.

SoftPC is the software only solution that lets you run more than 50,000 standard and custom DOS applications on your Macintosh.

And now, SoftPC with Windows, the newest member of the SoftPC family, *includes Windows installed and ready to run.* Plus, we've added special optimized drivers to give you the performance you need.

So while a PC is just a PC, SoftPC with Windows makes your Mac *both* a Mac *and a PC with Windows.*

At a click, you can run any standard-mode Windows application you want. VGA graphics too, of course.

Click again, and you're back on the Mac track.

Ask for "SoftPC with Windows" where you buy Mac software, or call us for the name of your nearest dealer. After all, if you can run Windows and have your Mac too, you've got a very clear advantage.

Microsoft Windows 3.1
Pre-installed and ready to use

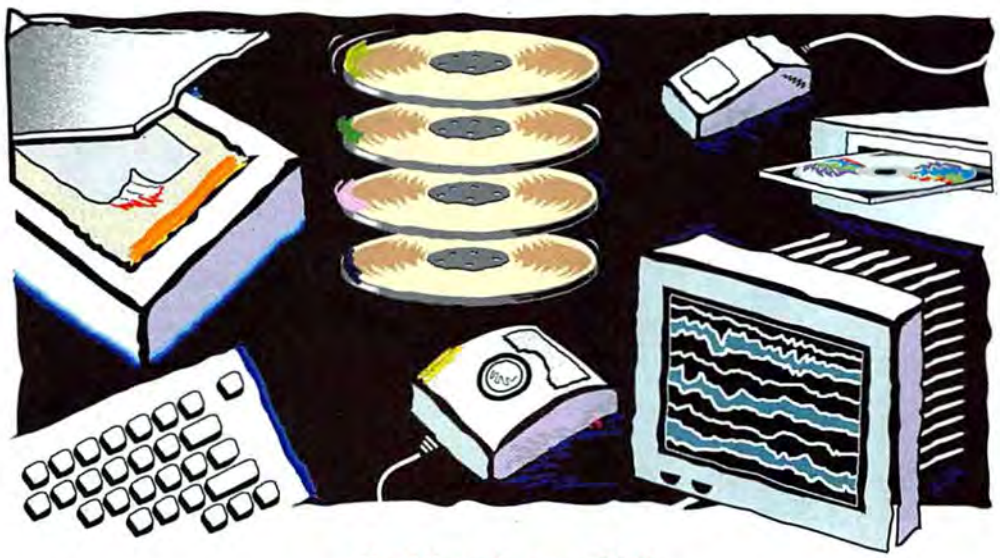
Insignia Solutions
Bridging Worlds Of Software™

For information on all Insignia's products and services, call our toll free Fax Response Service at **800-8-SOFTPC**.
Insignia Solutions Inc., **800-848-7677**. 526 Clyde Avenue, Mountain View, CA 94043. FAX (415) 964-5434. Call (415) 694-7600.
Insignia Solutions Ltd., Chippendale Court, Frederick Place, Kingsmead, London Road, High Wycombe, Buckinghamshire, UK. FAX +44 494-459720. Call +44 494-459426.

SoftPC and Insignia are registered trademarks of Insignia Solutions Inc. Windows is a trademark and MS-DOS is a registered trademark of Microsoft Corporation. All other product names are trademarks or registered trademarks of their respective holders.

CIRCLE 155 ON READER SERVICE CARD.

Hardware



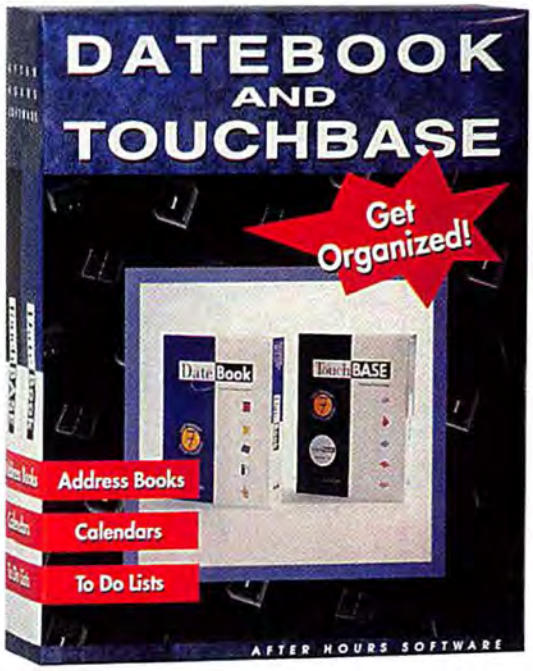
By Victoria von Biel

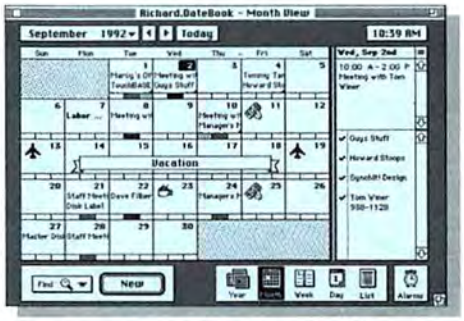
Buying the right Mac is only the beginning. What if you want to print a letter? Download stock quotes from an on-line service? Send a fax to your accountant? Stuff your Mac with enough memory to make Photoshop really hum? Review your budget on a bigger screen? You can do all this (and more) with your Mac, but these tasks require something extra — a peripheral.

When you buy a Mac, you know you're going to buy it from Apple. Peripherals, on the other hand, are sold by a dizzying array of companies — Apple included — and unless you've got an expert at your elbow, finding the right one can seem next to impossible.

We can't be at your elbow when you make your decision, but we *can* give you enough facts (and questions to ask) to make you expert enough to confidently evaluate and buy on your own. Here is a compilation of the best tips on buying devices such as printers, fax modems, hard drives, and monitors — the essential peripherals for any Mac system. By using this information — as well as our monthly lab reports on the latest Mac gear and the individual product ratings in the MiniFinders directory in this guide — you'll be able to find the products that best meet your needs.

Keep track of your life and the people in it.





Stay on-time with DateBook!



Stay in contact with TouchBASE!

"A *powerful* personal information management system—DateBook and TouchBASE keep me organized and in control."

—Guy Kawasaki, Author of *Selling the Dream* and *The Macintosh Way*

DateBook is the Macintosh personal time management system. DateBook combines calendar, scheduling, alarms and To Do lists to keep track of all your daily activities. DateBook is customizable yet simple and easy to use. ★★★★

- Year, month, week, day and list views
- Reminders and up-to-date To Do lists
- Sets alarms and recurring appointments instantly
- Prints schedules in popular *f*ILOFAX and DayTimer formats

TouchBASE is the personal contacts database that gives you instant access to vital information on friends and associates. It handles both your business and personal contact needs. You'll find it easier and more reliable than your rolodex. ★★★★½

- Search and sort to find people fast
- Auto-formatting for quick data entry
- Mail-merge for easy correspondence
- Print envelopes, labels, and fax cover sheets

A Winning Team

- Complete personal information management
- Simple to learn and easy to use
- Seamless integration of two powerful best-selling products
- Sharing of contact and event information

Look for reviews of our products in Organizational Tools Section/Personal-Info Managers. Available at all fine software outlets.

AFTER HOURS SOFTWARE

Tri Center Plaza • 5990 Sepulveda Blvd. • Van Nuys, CA 91411
(818) 780-2220 • FAX (818) 780-2666

Hard-Disk Drives

☑ What's the difference between a hard *disk* and a hard *drive?* The disk is where your data resides; the drive is the entire unit.

☑ You can buy internal or external hard-disk drives. Because an internal drive is installed inside your Mac, it saves space on your desktop. If it needs repairs, however, you may have to do without your Mac for a while. External hard drives can take up more desk space, but they work with every Mac and you can stack drives as your storage demands increase.

☑ Want an external drive that uses a minimum of desk space? Look for one with a "zero footprint" case — these slide right under your Classic-style (Classic, Classic II, SE, SE/30, or Plus) CPU.

☑ Many vendors sell hard drives, but the mechanisms within the drives are produced by only a few manufacturers — and it's the mechanism and driver software that determine the drive's performance. Check reviews in *MacUser* and other computer magazines to find the best drive mechanisms.

☑ When comparing similar hard drives, divide each one's price by its capacity to get a base dollar-per-megabyte price. Because many hard drives contain the same mechanism, a high price doesn't necessarily mean high quality.

☑ Make sure you know exactly what disk mechanism you're getting, and beware of "bargains" — sometimes vendors, rather than installing an advertised high-quality mechanism, substitute a lower-priced (and less reliable) one, occasionally from a company that has gone out of business.



If the only data-storage device you've got is a 40-megabyte internal hard-disk drive, then it's time to go shopping for a larger drive — not only will data be a little less crowded but your Macintosh's performance may also improve. If you're in the market for more storage space (around 100 megabytes or so), here are some tips on getting the most megabytes for your buck.

☑ Service and support are vital — reputable companies offer free phone support, quick turnaround on repairs, and loaner drives when yours needs servicing.

☑ Hard drives are often advertised in terms of their speed, but you don't necessarily need to get the fastest drive. If you have a Mac Classic, Plus, or SE, your Mac's SCSI circuitry limits the data-throughput speed, so the hard drive's speed isn't that important. If, however, you'll be upgrading to a faster Mac in the future, it's worth spending the extra money to get a speedier hard drive.

☑ Because a hard drive is a SCSI device, you need to be able to set its SCSI ID easily. Look for external hard drives that let you set the SCSI ID with push buttons; stay away from DIP switches.

☑ Most drives have two SCSI ports. A terminator is placed in one port if the drive is the first or last device on a SCSI chain. However, some drives now offer built-in *active termination,* which automatically senses whether the drive is in the middle or at the end of the SCSI chain and sets its termination accordingly.

☑ Find out what formatting software is included with the hard drive. Some formatters offer just the basics, so you'll need to buy a third-party product if you want to do such things as partition your drive or add password protection.

☑ Looking for freebies? Some vendors include software such as disk-repair utilities, shareware, and virus checkers on their formatted drives at no extra cost.

☑ Check the drive's documentation. You should get a manual that includes information on SCSI issues *and* tells you how to use the formatting software.



Verbatim® tapes, optical and floppy disks. Your best defense against data loss.

CIRCLE 162 ON READER SERVICE CARD.

How to Buy

Monitors



So you've just upgraded from a Classic to a IIvx. Your computer has more power, more storage, and a sleek design, but there's still something missing — a monitor. If you're used to the built-in 9-inch display that's part of the Plus, SE, and Classic II, the array of monitors available can be both enticing and intimidating. Here's a quick guide to the fundamentals of shopping for the right monitor (for tips on test-driving a monitor at a dealer, see "Do-It-Yourself Screen Tests," February '91, page 198).

☑ Monitors are available with screen sizes of 12 to 21 inches. As with TVs, the screen size is measured diagonally.

☑ Depending on the monitor's resolution, a 12-inch monitor shows about half of an 8 ½-x-11-inch page; a full-page display (15 inches) shows the whole page; and a two-page display (21 inches) shows most of two pages side by side.

☑ Wide displays are good for such applications as spreadsheet and page-layout programs or for working with several applications open simultaneously.

☑ If you're using your Mac for design and need a direct correlation between the size of objects on-screen and their printed size, look for a monitor with a resolution of 72 dpi (dots per inch). A 72-dpi monitor is known as a WYSIWYG (what-you-see-is-what-you-get, pronounced *wizzy-wig*) monitor. On a monitor with higher resolution, objects appear smaller and more of the page fits onto the screen, but text may be harder to read.

☑ If you do little more than word processing, go for a monochrome (black-and-white) or gray-scale monitor. They're cheaper and sharper than color monitors.

☑ Buy a color monitor if you're using your Mac for graphic design or presentations. If your Mac supports it, buy a 24-bit-color board. You'll get millions of smooth colors (8-bit color tends to band), and when you want to speed things up, you can use the Monitors control panel or an Fkey (such as the shareware Switcheroo) to switch the color mode to 8-bit.

☑ If your Mac supports a color monitor but doesn't have built-in video (the IIfx, IIcx, II, or SE/30), you'll need to buy a video card. Just make sure the monitor you're interested in is compatible with your video card. Call the monitor or card manufacturer for confirmation.

☑ Tell the dealer which Mac (or

Software Protection to the MACs



Macintosh™ developers: don't be afraid to protect your applications and your profits. Software Security's new **MacUniKey**™ family of hardware-based software protection devices offers complete, effective and non-intrusive software protection.

- Works on all Mac systems, from PowerBook™ to Quadra™
- Compatible with AppleTalk™, TokenTalk™ and EtherTalk™
- Available real-time clock and 128 to 512 bytes memory

MacUniKey "binds" your application to a uniquely-coded hardware device attached to the serial port. Your software may be freely copied and distributed, but it won't run without the appropriate MacUniKey attached.

Contact Software Security today for more information.

1-800-841-1316
In CT: 329-8870



SOFTWARE SECURITY Inc
1011 High Ridge Rd., Stamford, CT 06905

CIRCLE 216 ON READER SERVICE CARD.



Guess who didn't backup with DiskFit?

Your Mac feels warm. In fact, feverish. Suddenly, there's a wisp of smoke. Followed by a mushroom-shaped cloud. Oh, no! Computer Crash! There goes your precious data. Up in smoke. Will life ever be the same? Sure. If you backed up with DiskFit, no sweat. DiskFit is the backup software designed solely for the Mac.

So it works quickly and easily. Friendly. Stores and protects your data simply, smartly. After all, if your data was worth creating, it's worth protecting. So smile. DiskFit protects that too.



DiskFit Direct™
DiskFit Pro™

To go forward, you must back up

Dantz Development Corporation 1400 Shattuck Avenue, Berkeley, CA 94709 510-849-0293

CIRCLE 28 ON READER SERVICE CARD.

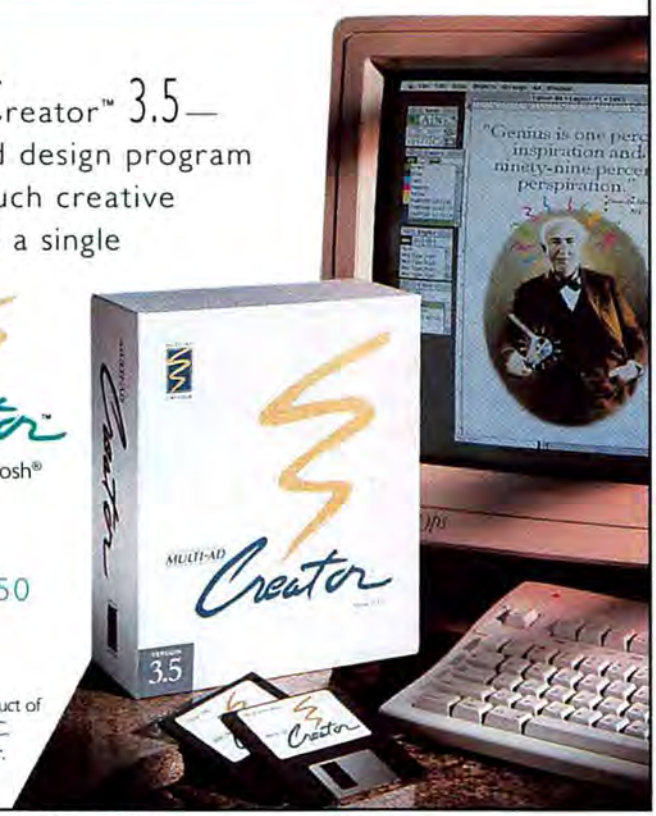
C R E A T I V E G E N I U S

Multi-Ad Creator™ 3.5—
No other ad design program offers so much creative versatility in a single package.

MULTI-AD Creator™
For Apple® Macintosh®

CALL:
800-447-1950
EXT. 355

Multi-Ad Creator is a product of
MULTI-AD SERVICES, INC.
1720 West Detweiller Dr.
Peoria, IL 61615-1695



CIRCLE 85 ON READER SERVICE CARD.

Mac video card) you'll be hooking the monitor up to, and make sure you get the appropriate cable — all Macs with built-in video and many new video cards check for specific connections on the video port. If you don't have the right cable, the video circuitry won't work.

☑ When buying a monitor, ask to see several brands at once so you can compare their performance. To avoid interference from magnetic fields (which can cause screen jittering), don't place the monitors too close together.

☑ A good monitor has accurate screen geometry — circles are round, not oval, and squares have straight, even sides. There may be distortion at the edges of the screen, because the electron beam that creates the screen image has to travel farthest to get to the edges of the screen, but the distortion should be minor. Larry Pina's shareware program Test Pattern Generator (available from user groups and on-line services such as ZiffNet/Mac) lets you easily test a monitor's screen geometry.

☑ Some monitors have etched screens to cut down on glare, but this shouldn't be at the expense of sharp focus. You can also reduce glare with antiglare screens from third-party manufacturers.

☑ To avoid screen flicker, opt for a monitor with a vertical-refresh rate of more than 60 hertz. If your eyes are sensitive to fluorescent lights, choose the highest-possible refresh rate.

☑ Look for monitors with the following controls: brightness, contrast, horizontal position, vertical position, horizontal size (or width), and vertical size (or height).

☑ Test for sharp focus by displaying a document with small fonts and thin lines — a spreadsheet, for example.

Apple announces two entirely unexpected ways to get ahead in business.



1. At your desk, it's a fully featured Macintosh. With 256-color video support on up to a 16-inch monitor, two NuBus expansion slots, room for an extra internal hard disk drive and an extended keyboard.



2. Touch the Eject button, and out slides a 4.2-pound PowerBook Duo 210 or 230. With a fast (25 MHz) or very fast (33 MHz) Motorola 68030 processor.



3. Outside the office, you can send and receive faxes and electronic mail by adding an optional PowerBook Express Modem. And thanks to the Apple EverWatch battery saver, you can extend each charge up to 4.5 hours.

Come and go as you please.



The new Macintosh Duo System.

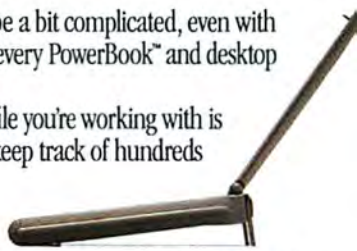
At your desk, you want a Macintosh® with a large color monitor, expansion capabilities and an extended keyboard.

Everywhere else, you want one that's light and small enough to carry from meeting to meeting.

But using two computers can be a bit complicated, even with the simplicity that Apple builds into every PowerBook™ and desktop Macintosh computer.

How can you be sure that the file you're working with is the latest version? And how do you keep track of hundreds of files in two different places?

The Macintosh Duo™ System is designed to simplify things.



At just a bit more than 4 pounds and only 1.4 inches thick, it's our lightest, smallest and most powerful PowerBook yet.

At your desk, it's an extremely powerful Apple® Macintosh. With support for up to a 16-inch monitor, a pair of NuBus™ expansion slots and your favorite keyboard.

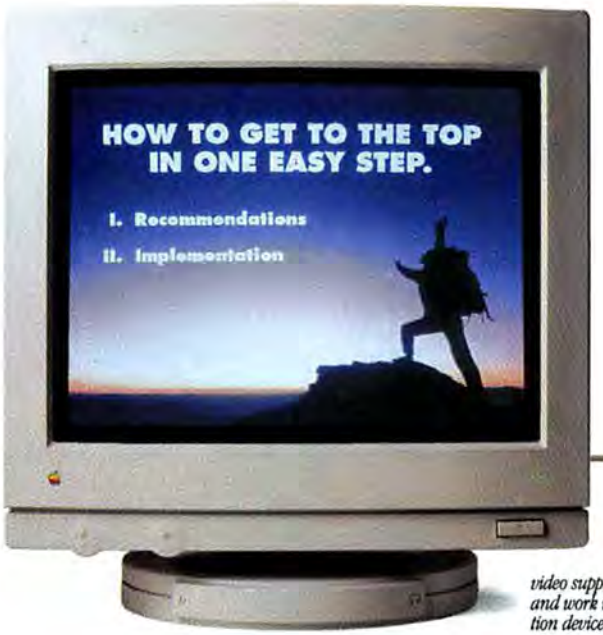
Touch one button, and out slides our new PowerBook Duo.™ Weighing just a shade more than 4 pounds. With an exceptionally bright screen, an integrated trackball and palm rest and up to 120MB of internal hard disk storage. So you carry all your files and software with you.

Our new PowerLatch™ technology makes the transition elegant and simple. When you reinsert the PowerBook Duo in the Macintosh Duo Dock, it senses which keyboard, monitor and expansion cards you're using. And it remembers your printer and other network connections.

What's more, the whole system costs less than the combined costs of a comparably powered PowerBook and desktop Macintosh.

The remarkable new Macintosh Duo System. It's not just the best of both worlds. It's the easiest way to go from one to the other.

For the name of your nearest authorized Apple reseller, call 1-800-538-9696, ext. 225. In Canada, call 1-800-665-2775, ext. 910. ©1992 Apple Computer, Inc. trademark of Texas Instruments. This ad was created using Macintosh computers.





Add an optional PowerBook Express Modem, and you can plug in a phone line to send and receive faxes from a hotel room, send and receive e-mail or access all the resources of a Macintosh network. Plug into an AppleTalk network, and you can use printers or share files with other computers on the network.



The PowerBook 160 and 180 have external video support. You can plug in a VGA or an Apple monitor and work with up to 256 colors. Or use a variety of projection devices that let you give spectacular presentations.

Get out and stay out.



The new PowerBook 180 offers video out, extraordinary performance (33 MHz) and the gray-scale successor to the active-matrix display already considered among the best in portable computing. A screen so bright and sharp, you have to see it to believe it.



The new PowerBook 160 offers video out for presentations and color monitors, an exceptionally bright 16-level gray-scale screen and enough power for almost any business application.



The new PowerBook 145 offers the swift performance of our best-selling PowerBook 170 and a bright supertwist display at a price that fits even a student's budget.

The enhanced PowerBook family.

You don't really care if you ever see the inside of your office again.

After all, it's what you get done that counts. Not where you do it. So the newest PowerBook computers make it easier to do whatever you have to do, wherever you happen to be.

We added a video connector in the 160 and 180 that lets you plug in a VGA or an Apple monitor to work with as many as 256 colors.

Or plug in a projection device and give stunning, full-color presentations with animation, sound and video.

We added 16 levels of gray and brightened a screen already considered among the best in portable computing.

We added significantly more power, speed and storage capacity. And the EverWatch™ battery saver, a system that can squeeze up to three hours from a single charge.

We designed a new option, the PowerBook Express Modem, that lets you send and receive faxes and electronic mail with extraordinary speed. Or use AppleTalk® Remote Access software to work with a Macintosh or an AppleTalk network via telephone.



PowerBook was the only personal computer to win a Gold Medal in the annual Industrial Design Excellence Awards sponsored by Business Week *and the Industrial Designers Society of America.*

And then, we lowered the price. So now millions more people can afford a PowerBook of their very own.

In the event you do decide to go back to the office, you'll discover we've added a new capability to the 160 and 180. Now you can plug a PowerBook into a Macintosh SCSI port, in effect transforming it into an external hard drive, making it extremely fast to move files back and forth.

And of course, we left in all the things that made PowerBook the only personal computer to be named a Product of the Year by *Fortune*, *Business Week* and *InfoWorld*.

It's the power to make you independent. The power to be your best.®

All rights reserved. Apple, the Apple logo, AppleTalk, Macintosh and "The power to be your best" are registered trademarks of Apple Computer, Inc. EverWatch, Macintosh Duo, PowerBook, PowerBook Duo and PowerLatch are trademarks of Apple Computer, Inc. Motorola is a trademark of Motorola Corporation. NuBus is a

America's Most Popular Macintosh Workshops Now On Video



Speed Learning

Most people are amazed. They need training. They hate reading manuals and they don't want to pay huge sums for local Macintosh training. At first they feel like giving up in frustration. Then someone tells them about MacAcademy's unique and valuable Video Training Library.

The Price

The first benefit of the training library is the price. Each video is only $49. While other training companies have raised their prices out of sight, MacAcademy videos cost the same as five years ago.

Selection

The next bit of good news is the huge selection of training videos available from MacAcademy. Below you will find a sampling of the videos currently available.

Quality

No blurry screens. No paid actors reading scripts. No frills. Each MacAcademy video features one of our top trainers recreating the classroom atmosphere and teaching you each program from start to finish.

Effectiveness

Many of our customers say our videos cut their learning curve by up to 70%! Videos give you the ability to actually *see* each technique on the Macintosh screen. The video allows you to replay, to fast-forward, or to find any particular technique immediately by using our unique counter system.

Flexibility

MacAcademy videos make excellent learning libraries for companies, schools, individuals, and clubs. They can be watched over and over and can even be projected to large groups. New employees can take them home and learn on their own.

Reputation

MacAcademy is the winner of the 1992 ***MACWORLD World Class Award***. Readers chose MacAcademy as the top trainer in the nation. No other organization even came close! When it comes to training, MacAcademy has the best reputation in the business. You deserve World Class training at an extremely low price. In addition, all videos carry a complete 30 day guarantee.

30 Day Money - Back Guarantee. *If you're not totally satisfied simply send the videos back for a full refund.*

To Order

Call 800-527-1914 with credit card or purchase order info or mail or FAX your order to the address and number below. Add $3 plus $1/video shipping and handling.

- ☐ Acius 4th Dimension Video #1
- ☐ Acius 4th Dimension Video #2
- ☐ Acius 4th Dimension Video #3
- ☐ Acius 4th Dimension Video #4
- ☐ Adobe Illustrator 3.2 Video #1
- ☐ Adobe Illustrator 3.2 Video #2
- ☐ Adobe Illustrator 3.2 Video #3
- ☐ Adobe Photoshop Video #1
- ☐ Adobe Photoshop Video #2
- ☐ Adobe Photoshop Video #3
- ☐ Aldus Freehand Video #1
- ☐ Aldus Freehand Video #2
- ☐ Aldus Freehand Video #3
- ☐ Aldus PageMaker Video #1
- ☐ Aldus PageMaker Video #2
- ☐ Aldus PageMaker Video #3
- ☐ Aldus PageMaker Video #4
- ☐ Aldus Persuasion Video #1
- ☐ Aldus Persuasion Video #2
- ☐ Aldus SuperPaint Video #1
- ☐ Aldus SuperPaint Video #2
- ☐ Aldus SuperPaint Video #3
- ☐ Claris FileMaker Pro Video #1
- ☐ Claris FileMaker Pro Video #2
- ☐ Claris FileMaker Pro Video #3
- ☐ Claris MacDraw Pro Video #1
- ☐ Claris MacDraw Pro Video #2
- ☐ Claris MacProject II Video #1
- ☐ Claris MacProject II Video #2
- ☐ Claris MacProject II Video #3
- ☐ Claris MacWrite II Video #1
- ☐ Claris MacWrite II Video #2
- ☐ ClarisWorks Video #1
- ☐ ClarisWorks Video #2
- ☐ ClarisWorks Video #3
- ☐ ClarisWorks Video #4
- ☐ Deneba Canvas Video #1
- ☐ Deneba Canvas Video #2
- ☐ Deneba Canvas Video #3
- ☐ Claris HyperCard Video #1
- ☐ Claris HyperCard Video #2
- ☐ Claris HyperCard Video #3
- ☐ Intuit Quicken Video #1
- ☐ Intuit Quicken Video #2
- ☐ Lotus 1-2-3 Video #1
- ☐ Lotus 1-2-3 Video #2
- ☐ Lotus 1-2-3 Video #3
- ☐ Macintosh (6.0 or 7.0) Video #1
- ☐ Macintosh (6.0 or 7.0) Video #2
- ☐ Macintosh (6.0 or 7.0) Video #3
- ☐ Microsoft Excel Video #1
- ☐ Microsoft Excel Video #2
- ☐ Microsoft Excel Video #3
- ☐ Microsoft Excel Video #4
- ☐ Microsoft Excel Video #5
- ☐ Microsoft Word Video #1
- ☐ Microsoft Word Video #2
- ☐ Microsoft Word Video #3
- ☐ Microsoft Word Video #4
- ☐ Microsoft Works Video #1
- ☐ Microsoft Works Video #2
- ☐ Microsoft Works Video #3
- ☐ Microsoft Works Video #4
- ☐ QuarkXPress Video #1
- ☐ QuarkXPress Video #2
- ☐ QuarkXPress Video #3
- ☐ WordPerfect Video #1
- ☐ WordPerfect Video #2

$49ea.

Videos can be updated upon release of new software versions for only $14.95.

MacAcademy®

477 S. Nova Rd. Dept. MUBG93
Ormond Beach, FL 32174
800-527-1914 FAX 904-677-6717

CIRCLE 83 ON READER SERVICE CARD.

How to Buy

Laser Printers



Buying a laser printer is a little like buying a new car. Will the sturdy economy printer really be enough to meet your needs, or do you need the zippy little sports model that spits out page proofs in no time flat but puts a big dent in your budget? And what about such extras as fonts, memory, and special paper trays? To help reach your buying decision, read on.

☑ There are two types of laser printers: PostScript and QuickDraw. PostScript printers can be used on a network, and they let you print outline fonts and graphics created with the PostScript page-description language. QuickDraw printers, such as the Apple LaserWriter LS, can neither be used on a network nor can they print PostScript documents.

☑ Do you really need a PostScript printer? If simple text files or spreadsheets are all you print, the answer is definitely no. You can print graphics on a QuickDraw printer, but you need PostScript to print graphics created with a PostScript application, such as Illustrator or PageMaker.

☑ Rather than laser printers, consider inkjet printers, which have resolutions comparable to those of QuickDraw laser printers but cost about half as much. And some inkjets can be used on a network.

☑ If you do want PostScript, you can save as much as $400 by buying a printer that uses cloned PostScript technology instead of the real thing licensed from Adobe. Printing very complex graphics with absolute confidence requires true PostScript, however.

☑ Before you buy, make a comprehensive list of which applications you use, what you print, and what page sizes you need. Then create test documents that typify what you print. Include PostScript graphics, rotated and filled text, and any unusual fonts you use regularly. If you're buying from a dealer, use the sample files to see how the printer copes with them. If you're buying by mail, call the printer manufacturers and see if you can arrange to have a product demonstration in your office.

☑ Beware of manufacturers' speed claims. Most printer ads cite a page-

NEW!

SCSI Video Frame Grabber

For Any Macintosh

New ComputerEyes/RT offers affordable, accurate, real-time 24-bit color video frame capture for any Macintosh computer - SE/30, Classic, LC, IIsi, Mac II, Quadra, PowerBook, etc. Portable external SCSI device is easily moved from Macintosh to Macintosh.

Real-time video preview directly on the monitor. Fast, full-screen 640x480 image grab in 1/30th second from any composite (or S-Video) camcorder or VCR. Supports all Macintosh displays. Outputs standard TIFF and PICT files.

Supports QuickTime for capturing video animations!

ComputerEyes/RT SCSI - $599.95.
Other ComputerEyes versions available from $249.95.

Also available - New TelevEyes Mac-to-TV converter. External device allows your Mac to display to large-screen composite (or S-Video) monitors or to video tape.
TelevEyes Mac-to-TV - $299.95.

See your dealer or call (800) 346-0090 for more information and free demo disk.

COMPUTER EYES

Digital Vision, Inc.
270 Bridge Street
Dedham, MA 02026
(617) 329-5400

CIRCLE 71 ON READER SERVICE CARD.

per-minute speed, which doesn't take the document-imaging time into account. For documents with elaborate graphics, that can be a long, long time.

☑ If you need an especially fast printer, go for one with a RISC (reduced-instruction-set-computing) processor.

☑ Find out what the printer's consumables costs are — how often does the toner cartridge need to be replaced or refilled, for example, and how much do replacements cost? Also find out what other components need to be regularly replaced.

☑ Even if you don't need special paper trays now, make sure they're available in case you want to add them later.

☑ Plugging a ROM card in to a PostScript printer is a new way to add fonts and provides quick access to several fonts for less than $300 per card. The cards' main advantage is speed, in that you don't have to download the fonts each time you want to use them.

☑ If you use several fonts regularly, buy a printer that can be connected to a hard-disk drive in which you store the fonts.

☑ Ask how much memory the printer has and whether you can upgrade it. Low memory configurations (less than 2 megabytes) may affect what page sizes you can print (important if you print legal-sized documents) and how many fonts you can use.

☑ Don't buy memory upgrades directly from a dealer or manufacturer. Check out third-party companies for the best prices.

☑ Make sure the printer you choose is compatible with your network. Tell the dealer exactly what platforms and network configuration you will be using with the printer. Ask what cabling and connectors are required. If possible, try the printer on your network to see how it performs.

☑ If you're considering a printer that is not designed exclusively for Macs, make sure an AppleTalk interface kit is included in the price.

☑ If you want a multiplatform printer, get one that switches from Mac to PC printing on the fly.

PowerBook Owners:

Q. Which Mac has the latest version of your data?



A. With Inline Sync™, they both do!

Synchronize Files Automatically

Update your calendars, sales figures, customer lists, correspondence—you name it—automatically. Inline Sync is your solution.

Inline Sync is Easy to Use

Select files and folders from the simple File List interface. Choose the powerful scripting features to automate file selection by any combination of date, location, name, file type, or file kind.

Inline Sync is Convenient

Link any same-named files or folders automatically or manually, even if they have different folder paths on each hard disk. No need to reorganize your hard disks to keep your files up to date!



Any two mounted volumes can be synchronized.

Synchronize volumes immediately, or on a schedule you define: daily, weekly, monthly, or in the background anytime your Mac is idle.

Inline Sync is Safe

Relax. Inline Sync verifies copied files, lets you know if both copies of a file have changed since the last synchronization, and lets you choose to keep one or both versions.

Inline Sync is time zone aware—it transparently deals with time zone differences and alerts you to clock anomalies.



INLINE DESIGN 308 Main Street
Lakeville, CT 06039
203-435-4995
Fax: 203-435-1091

For more information or the location of a dealer near you, call us today!

1-800-453-7671

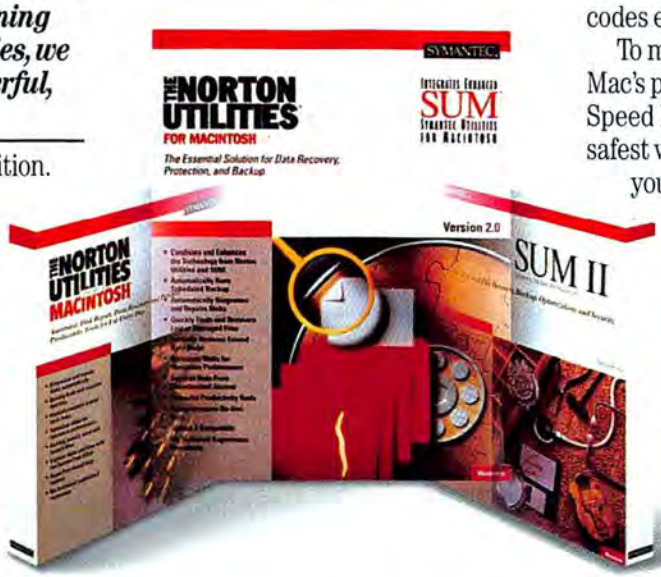
Inline Sync is a trademark of Microseeds, Inc. ©1992 Microseeds. Inline Sync requires System 7. Macintosh is a registered trademark, and PowerBook is a trademark of Apple Computer, Inc.

CIRCLE 70 ON READER SERVICE CARD.

NEW NORTON UTILITIES. GREATER THAN THE SUM OF ITS PARTS.

More than simply combining SUM and the Norton Utilities, we made it faster, more powerful, and easier to use.

Talk about a win-win proposition. Now you can get the most comprehensive data protection and recovery features for the Mac in a single box. Plus, some innovations that make Norton Utilities 2.0 the very best way to protect your data.



The Ultimate In Data Protection.

Using simple menus and icons, Norton Utilities 2.0 combines the technologies from SUM and Norton Utilities to guide you through the best and worst of computing times.

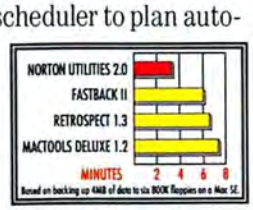

Now you can diagnose problems and restore data — with one product from the master of data recovery, Peter Norton.

To start, the Norton Disk Doctor® is in and it's more powerful than ever. It automatically diagnoses damaged hard drives and floppies, identifying and repairing both common and uncommon disk errors.

Say you've accidentally erased an important file, the enhanced UnErase® will dig deeper to recover it. The improved Volume Recover searches farther and wider to find lost or damaged data.

All This And Fast Backup, Too.

Of course, the first line of defense against data loss is reliable backup. Our fast and flexible Norton Backup makes it easy. Use the scheduler to plan automatic backups from one or more volumes. Its data verification and error correction codes ensure the integrity of your files.



Norton Backup lets you quickly and easily make backups of single files, folders or large volumes.

To make the most of your Mac's performance, check out Speed Disk,™ the fastest and safest way to defragment your files and optimize your hard drive.


Speed Disk™ accelerates your disk drive performance without risk.

Not Just The Best Product, The Best Value.

The new Norton Utilities for Macintosh. It's everything you've come to expect from the top two Mac utilities. Plus, all the security, productivity, and system enhancements you'd expect from Peter Norton. In one box. Now what could be greater than that? To upgrade your existing SUM II or Norton Utilities for Macintosh for just $39,* call **1-800-343-4714 ext. 754-F.**



SYMANTEC.

© 1992 Symantec Corporation. *Offer valid only in the U.S. and Canada — price in U.S. dollars. International phone: Canada, 1-800-465-2266; Europe, 31-71-353111; Australia, 2-879-6577; others, 1-408-252-3570. All trademarks or registered trademarks are those of their respective holders.

WHY DO I NEED A SUPRA FAX MODEM?

Why do I need a fax modem? That's exactly what I thought! As a graphic designer at Supra, my job is to design great-looking stuff, not to use our products. So I was skeptical — and downright reluctant — when my boss told me to start using a SupraFAXModem.



But I tried it. And I love it! Here's why...

SAVES TIME. Now I have extra time because I don't wait in line at the fax machine anymore — in fact, I don't even leave my desk! I simply use the Chooser to select the modem (instead of a printer), "print" an open file, and tell the modem where to send it. It only takes a minute!



SAVES MONEY. Besides the money we save because I'm designing instead of "chasing paper," I save a lot by using the SupraFAXModem's data capabilities. It's usually less expensive to transfer a file using my modem than to use an overnight delivery service. And because SupraFAXModems feature V.42bis data compression, my files transfer up to 4 times faster — which means lower long-distance charges! It has also saved me when I've forgotten important files at work, because I can easily call our network and retrieve them using **AppleTalk Remote Access.**

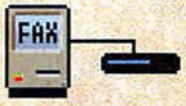


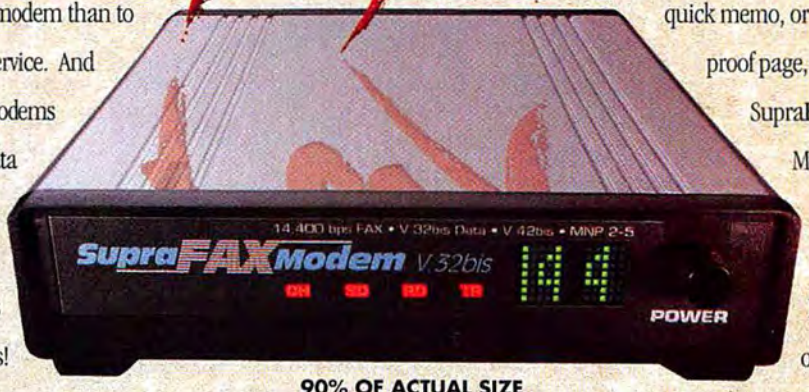
CIRCLE 87 ON READER SERVICE CARD.

EASY TO USE. Not being particularly technical, I was a little intimidated when my boss dropped the modem on my desk and said "Go for it." But getting started was easy. The SupraFAXModem for Macs has everything I need in the box — FAXstf™ and MicroPhone™ 1.6 software, cables, and manuals — so I dove in. A great little 16-page manual walked me through installing the modem (which went really fast), sending and receiving my first faxes, and transferring data files. The software was easy to use, worked great with my Mac, and did everything I wanted it to. Before I knew it, I was using a fax modem!



GREAT FAX QUALITY. As a graphic designer, I care about how things look. That's why I was thrilled when I saw how clear the faxes I send look when they reach the fax machine on the other end! It doesn't matter whether I'm sending a quick memo, or a proof page, the SupraFAXModem faxes a near laser quality, perfect page.





90% OF ACTUAL SIZE

GOOD FOR THE PLANET. And to top it all off, my SupraFAXModem Modem lets me avoid extra printouts and non-recyclable fax paper!



I strongly recommend that all Macintosh owners consider the benefits of using a **SupraFAXModem.**

Randy Hill
Supra Graphic Designer

Supra Corporation

1-800-944-8772

Featuring Rockwell Modem Technology



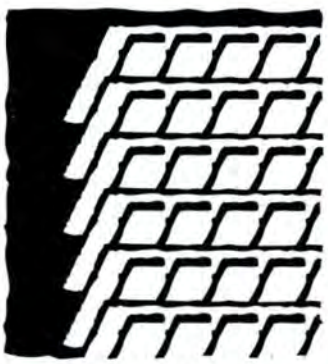
CALLER ID AVAILABLE NOW

14,400 bps — $479.95 9600 bps — $379.95 2400 bps — $219.95
COMPLETE MACINTOSH PACKAGES

All trademarks belong to their respective companies. 7101 Supra Drive SW, Albany, OR 97321 USA • Fax: 503-967-2401 • 503-967-2410

How to Buy

Memory



If you're running System 7, you've already got a minimum of 2 megabytes of RAM (random-access memory) installed — but if that's *all* you've got, you're probably struggling to run one program, such as Microsoft Excel or PageMaker, let alone a few necessary utilities. To have more than one application open at once (or to run MultiFinder under System 6), you need to beef up the amount of RAM available. That's not as daunting as it sounds — there are lots of mail-order companies selling memory, and prices are getting lower every day. Do a little research before you buy, and in no time, your memory problems will be over.

☑ To add more memory to your Macintosh, you need to install SIMMs (single in-line memory modules) on the motherboard. SIMMs come in many sizes — 256K, 512K, 1 megabyte, 2 megabytes, 4 megabytes, and 16 megabytes — and speeds — 150, 120, 100, 80, and 60 nanoseconds (the lower the number, the faster the SIMM). The size and speed you need depend on your Mac. As long as you get the minimum speed your Mac can use, you're all right — you can use faster SIMMs, but your Mac just won't be able to make use of the extra speed.

☑ What size and speed do you need? You'll find all the information in Connectix's free booklet *The Macintosh Memory Guide.* You can get a copy by calling Connectix at 800-950-5880 or 415-571-5100. *The Guide* also fills you in on the mysteries of virtual memory and 32-bit addressing.

☑ You can install SIMMs yourself, but doing so may void the warranty of some Macs, such as the Classics and the PowerBooks. Adding memory to a compact Mac (a Classic, Plus, SE, or SE/30) requires extreme care and the use of a special Torx T-15 screwdriver to open the case. If you don't feel comfortable installing SIMMs yourself in these Macs — even if they're no longer under warranty — budget an extra $50 or so to get a dealer to do it for you.

☑ You can buy SIMMs from your Apple dealer, but you'll pay a lot less if you buy them through a mail-order company. Check the classified ads in magazines such as *MacUser* for brokers, and call large

PROTECT YOUR COPIES OF MacUser

Make your collection of MacUser a handsome addition to your office or home—and protect them for easy reference!

MacUser Magazine Binders and Cases are made of durable luxury-look leatherette over quality binder board. Custom designed for MacUser, every order receives FREE gold transfer foil to personalize dates and volume numbers.

For Fast Service Call Toll Free, 1-800-825-6690

MAGAZINE BINDERS

Hold your issues on individual snap-on rods. $9.95 each. 3 for $27.95. 6 for $52.95.



OPEN BACK CASES

Store your copies for individual reference. $7.95 each. 3 for $21.95. 6 for $39.95.



MacUser
c/o Jesse Jones Industries
499 East Erie Avenue—Philadelphia, PA 19134

Please send me: Quantity_____ ☐ Binders ☐ Cases
Payment by check or money order enclosed for $_____.*

Add $1 per case/binder for postage and handling. (Outside USA, add $2.50 per case/binder ordered, US Currency only.)

Charge my: ☐ AmEx ☐ Visa ☐ MC (minimum order $15)

Card No._____ Exp. Date_____

Name_____

Street Address_____
Sorry we cannot ship to P.O. Boxes. Thank you.

City_____ State_____ Zip_____

*PA residents add 6% sales tax.



No Wild, No Wildlife.

Polar bears, musk-ox, grizzlies, caribou — more animals than you'd find in Yellowstone — can be found on the magnificent coastal plain of the Arctic Refuge in Alaska. Unfortunately, this portion of our last arctic wilderness has caught the eye of the oil industry. Right now Congress is considering proposals that would allow the oil companies to drill there, even though reports indicate there's less than a one-in-five chance oil would be found.

If we allowed drilling in the region, we would jeopardize the culture of the native Alaskans and untold wildlife, including a herd of 180,000 caribou. Our last arctic wilderness would be despoiled.

The Sierra Club works to save wildlife by saving the wilderness. And we believe, with your help, this arctic wilderness will remain an invaluable refuge.

For information on how you can help:

SIERRA CLUB CENTENNIAL 1892-1992

Sierra Club
Dept. AR
730 Polk Street
San Francisco, CA 94109
(415) 776-2211

mail-order companies such as MacWAREHOUSE and MacConnection. You can sometimes buy SIMMs directly from the manufacturer as well.

☑ Prices vary widely, depending on whom you call (between $28 and $35 for 1-megabyte SIMMs at press time), but don't automatically go for the lowest price. Compare warranties, support, and quality as well as price.

☑ Ask whether the SIMMs you're buying are manufactured with used chips. The chips *may* be of good quality, but they may also have a short life. Such a practice can also indicate that a company is cutting corners and may not be in business much longer.

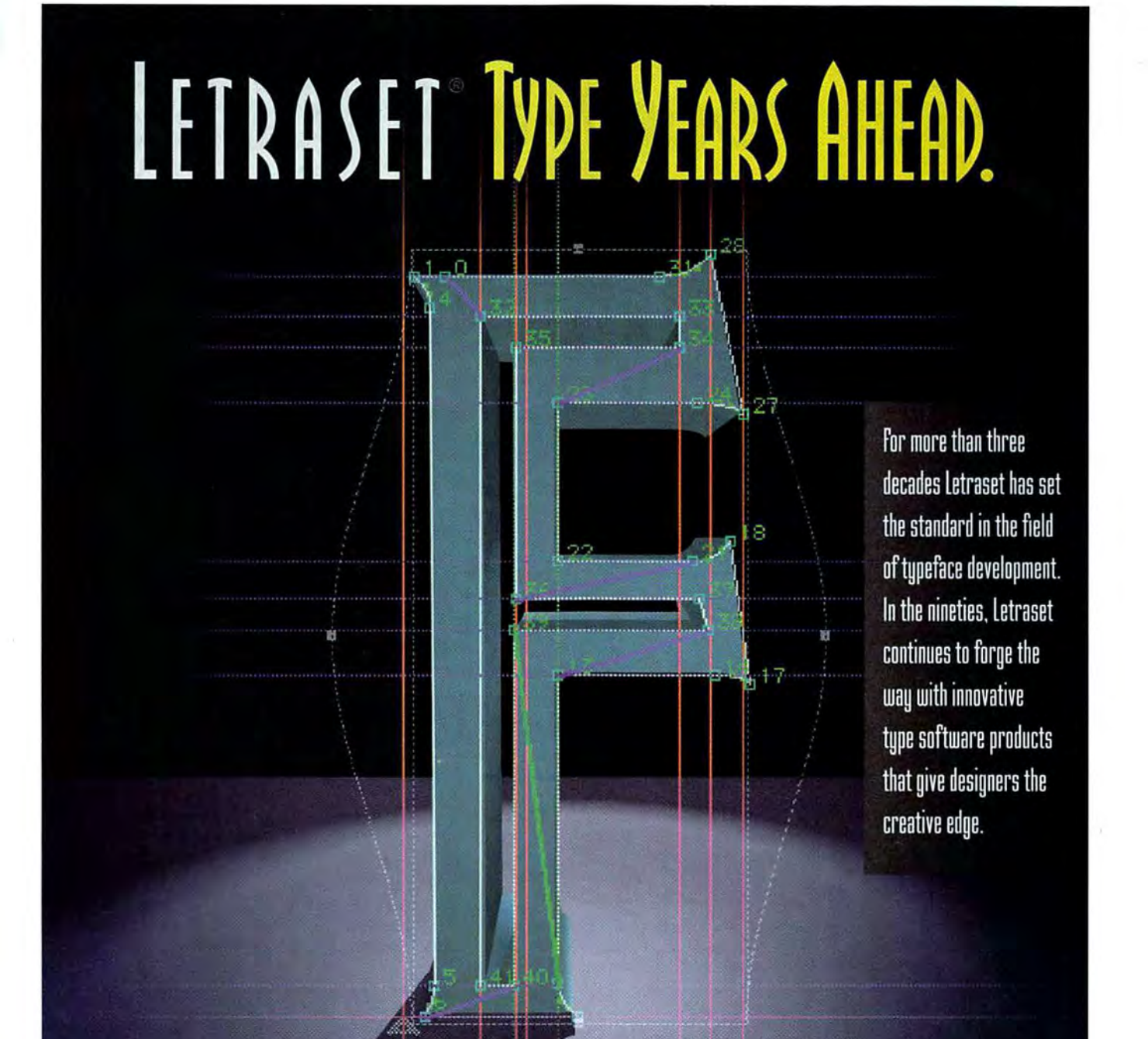
☑ Ask for SIMMs that are *surface-mounted* rather than *through-hole* — they use less power, create less heat, and are more reliable.

☑ If a company offers a lifetime warranty on its SIMMs, find out exactly what that means. Does the warranty apply to the chips and the panel? And is it voided if you transfer the SIMMs from one Mac to another? Also, a lifetime warranty is useless if the company goes out of business in a year. Ask how long the company has been around — the answer may give you some indication of how stable it is.

☑ Ask what the company's replacement policy is. Some companies ship out a new SIMM overnight as soon as you contact them; others wait until they receive the defective SIMM from you.

☑ Ask what kind of installation advice you get with your SIMMs. Some large mail-order houses will include with your order a video that shows you how to install memory, some send written instructions, and others have telephone-support technicians who walk you through the installation process.

LETRASET® TYPE YEARS AHEAD.



For more than three decades Letraset has set the standard in the field of typeface development. In the nineties, Letraset continues to forge the way with innovative type software products that give designers the creative edge.

FONTEK™

Letraset's world renowned display type library offers superior quality digital type fonts in the broadest range of type display styles available. FONTEK typefaces are faithful to the library's original typeface designs in every detail—on screen and in print. Each FONTEK disk features a free Character Chooser Utility for easy access to FONTEK's complete character set plus alternatives, accents and symbols in both TrueType™ and Postscript® Type 1 formats.





LetraStudio®

Create dazzling and imaginative headlines with the perfect tool for custom display typography and type effects. Layout grids, drawing tools and guidelines provide everything you need to condense, stretch, slant, scale, rotate and distort type with total control over kerning, letterspacing, sizing and placement. Ideal for signage, multi-media, video titling, package design or any imaginative print media application.

FontStudio®

If you love type, FontStudio 2.0 is the all-powerful professional program for you. FontStudio puts you in total control of character outlines and on screen bitmaps whether you're creating an original logo, font of your own, or importing and modifying an existing PostScript Type 1, Type 3, or TrueType font.



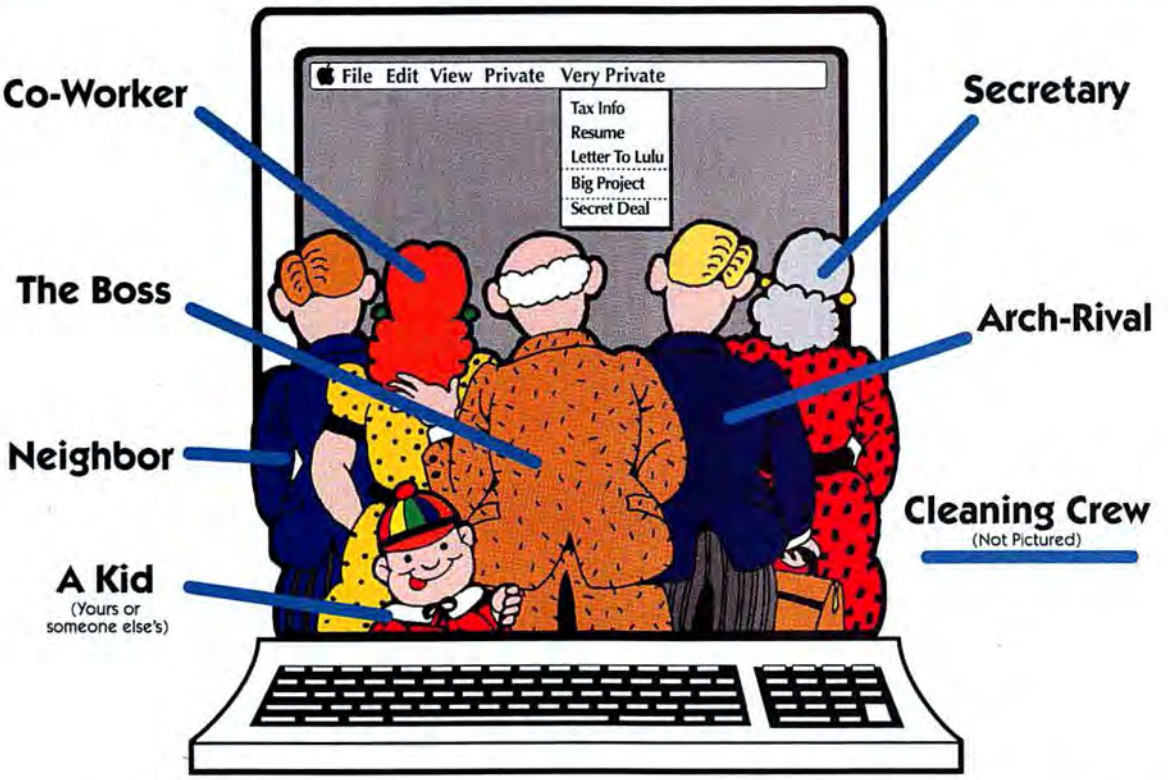
For more information call 1-800-343-TYPE

Letraset

Letraset, FONTEK, LetraStudio and FontStudio are trademarks of Esselte Pendaflex Corporation in the United States, of Letraset Canada Limited in Canada, and of Esselte Letraset Limited elsewhere and are widely protected by registration. Other brand and product names are trademarks or registered trademarks of their respective holders. © 1992 Esselte Pendaflex Corporation.

CIRCLE 190 ON READER SERVICE CARD.

Who's been mousing with your Macintosh®?



Even if you must share your Macintosh, you don't have to share all of your software and data — if you use Kent♦Marsh Ltd. security software. Whether you lock folders with **FolderBolt**, limit access to your hard disk with **NightWatch II**, or provide bullet-proof encryption protection with **MacSafe II**, Kent♦Marsh has a safe, secure solution.*

Choose all or any combination of our **modular** security products. They're *easy* to learn and to use — and *easy* on your budget because you buy only what you need. And if you're a PowerBook user, we can protect your files on the road — even if your PowerBook is stolen!

Kent♦Marsh has led the Macintosh security field since it began. All we do is security — with a full time in-house product development and consulting staff available free of charge to answer your questions and help you make security decisions.

Isn't it time for you to protect your software and data? Call your software dealer or Kent♦Marsh today and we'll help you determine the security solution that's right for you. You'll rest easier for it.

* See product listings in this publication for more detailed information.

FolderBolt

Integrated Security for the Desktop

"If you're looking for a straightforward, easy-to-use solution for the problem of computer security, look no further than FolderBolt ." — **MacUser**

NightWatch II

Complete Security for Macintosh Hard Disks

"**NightWatch** . . . the electronic guardian angel." — **MacUser**

MacSafe II

Advanced Security Software for Mac Files & Networks

"For keeping those prying eyes away from your important data files, **MacSafe** might be the perfect solution to your problems." — **MacUser**

Kent♦Marsh Ltd.

The Macintosh® Security Experts



Redeem Your Rebate Ring!

Buy NightWatch II — we'll send you $10.00. Buy NightWatch II and FolderBolt — we'll send you $25.00! Just circle the appropriate keyring and send this coupon, with your completed registration card and proof of purchase to:

Kent♦Marsh Ltd., 3260 Sul Ross, Houston, Texas 77098 (713) 522-LOCK (800) 325-3587

CIRCLE 36 ON READER SERVICE CARD.

How to Buy

CD-ROM Drives

☑ CD-ROM is an acronym for *compact disc read-only memory*. CD-ROMs look exactly like their audio counterparts, and in fact, you can play audio CDs on a CD-ROM drive.

☑ No, you can't hook up your CD player to your Mac and use it to read CD-ROMs. Unfortunately, CD players have slower access times than do CD-ROM drives, and they lack the error-correction circuitry and SCSI interface necessary for computer use.

☑ Why are CD-ROM drives more expensive than CD players? Fewer CD-ROM drives are produced, so they cost more to manufacture. They also require more-expensive components.

☑ For those who are in the market for a CPU too, buying a Mac IIvx or Performa 600 CD from Apple is a good deal; the optional internal CD-ROM drive is much cheaper than a comparable external drive would be.

☑ Although you won't break any speed records with a CD-ROM drive, manufacturers have finally freed themselves from old standards that shackled performance. NEC now makes some drives that are showing faster throughput than was previously possible, and other manufacturers are sure to soon follow suit.

☑ Check out the audio software that comes with the CD-ROM drive. Usually in the form of a control panel or a HyperCard stack, audio software lets you play audio CDs on your drive when you are not using it to access data. Some programs let you do such things as shuffle tracks and create custom playlists.



The pundits who promised there'd be a CD-ROM drive on *almost* every desktop may soon be proved right. Sales of these read-only drives, which let you access discs that can contain more than 600 megabytes of data, are finally taking off. In addition, more Mac-specific CD-ROMs are becoming available. Using CD-ROMs is proving especially popular for training, reference, and storing such resources as graphics and clip art. If you're in the market for a CD-ROM drive, these pointers will direct you toward the right one.

☑ For the best-quality sound, make sure the drive has RCA preamp jacks that let you hook it up to external speakers; otherwise you're limited to the headphone jack.

☑ Check the volume control — you want something that will give you as much power as possible.

☑ If you have in mind specific uses for the CD-ROM drive — accessing Adobe Photoshop files, for example — test the drive with the software you plan to use it with, before you buy. You may find that there are significant performance differences among drives.

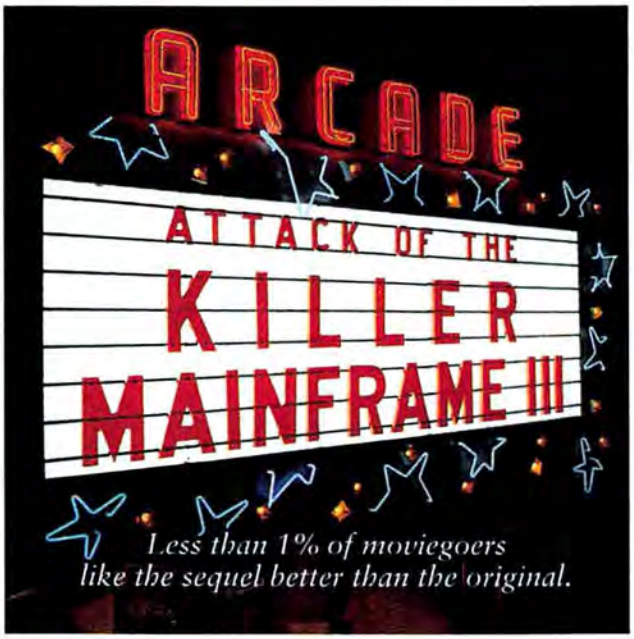
☑ If you want to use the CD-ROM drive to display the contents of Photo CD discs (Kodak's new image-storage medium), make sure that it is multisession-capable. That means that you can keep adding images at different times to your Photo CD until it's filled up.

☑ Some manufacturers bundle free CDs with their drives, but don't let this practice blind you to the drive's quality — or lack of it.

☑ Dust is a CD-ROM drive's greatest enemy. If you're going to be working in a dirty environment (near an open window or in a room where people smoke, for example), make sure the drive's door closes, thus protecting the mechanism.

☑ Drives that come with self-cleaning lenses are more effective in the fight against dust, but they're also more expensive.

☑ Here's how to test a CD-ROM driver's reliability: Mount a disk, drag it into the Trash, and then remount it. If the disk doesn't remount, the driver's questionable.



You know how it is. You fall in love with the original. And the sequel always seems wanting. Not so with new FileMaker® Pro 2.0 for the Macintosh. ~ This sequel to the best-selling

ONE OF THE RARE CASES IN
HAS BETTER SCRIPTING

Macintosh database of all time has even more power and functionality than the original. Thanks to a starring cast of over 50 new features. And an entirely new interface for scripting called ScriptMaker™. ~ ScriptMaker makes it easier than ever to create customized scripts that automate virtually any database job you can imagine. Simply select the tasks you want

For more information, call 1-800-3-CLARIS, ext. 17. In Canada, call 1-800-668-8948, ext. 48. © 1992 Claris Corporation. All rights reserved. Claris and FileMaker are registered trademarks and ScriptMaker and Simply powerful software are trademarks of Claris Corporation. All other product names are trademarks of their respective owners.

accomplished, click your mouse and your script is ready to run. It's that easy. ~ But great scripting is just the beginning. Completely System 7 Savvy, FileMaker Pro lets you cast and play QuickTime movies in your database records. Print out over 50 different types of Avery labels — perfectly formatted first time, every time. And even share Macintosh FileMaker Pro files with PCs running FileMaker Pro for Windows. ~ FileMaker Pro 2.0. One of the rare sequels that truly delivers a blockbuster of a performance.

LIFE WHERE THE SEQUEL THAN THE ORIGINAL.



CLARIS®

Simply powerful software.™

To Upgrade To FileMaker Pro 2.0, Call 1-800-544-8554, Ext. 17.

So Much.



True 600 x 600 laser output

Paper sizes up to 11" x 17"

Automatic switching for Mac and PC

Superb CAD, spreadsheet and desktop publishing output

PostScript®, HPGL/2, HP PCL5 language compatible

Multiple RISC processors improve total throughput

30-day money back guarantee

So Little.

$3995

So what else could you ask for?

Not much when CalComp's new CCL 600™ laser printer already includes letter and 11 x 17 paper sizes, the latest Canon-based laser engine with crisp 600 x 600 dpi resolution, concurrent Macintosh and PC connectivity, compatibility with PostScript, HPGL/2 and PCL5, plus special processors for incredibly fast throughput.

So easy to buy, too. Just call CalComp Direct to order the new CCL 600 or to see a demonstration at your nearest CalComp dealer. You get a 30-day money back guarantee, 1-year warranty and CalComp's world class support, so why wait? Order now!

CALCOMP DIRECT

800-445-6515 Ext. 43

CIRCLE 43 ON READER SERVICE CARD.

SALES TERMS: Prices are in United States dollars. With approved credit, standard terms are Net 30 from date of delivery. We also accept MasterCard/VISA (no surcharge), cashiers check and money orders. Prices do not include applicable sales tax or delivery charges and are subject to change without notice. Ordering hours 7:30 am to 4:30 pm PST. DELIVERY: In most cases products are shipped within 24 hours, surface; 1st or 2nd day air available. CalComp is not responsible for errors in typography. ©1992 CalComp. CCL 600 is a trademark of CalComp. PostScript is a registered trademark of Adobe Systems Inc. HPGL/2 and PCL5 are trademarks of Hewlett-Packard. Canon is a trademark of Canon Inc. CalComp, a Lockheed Company, is headquartered at 2411 West La Palma, Anaheim, CA 92801. FAX: 714-821-2714. From outside the U.S. and Canada, call 714-821-2000.

How to Buy

Fax Modems

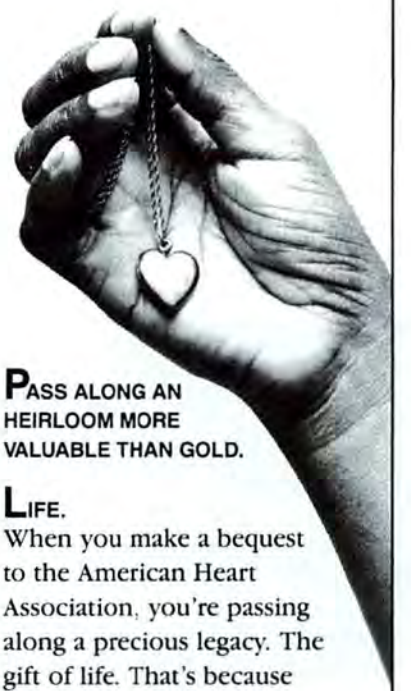


Just as the fax machine threatens to make bicycle messengers extinct, the fax modem might be on the way to making fax machines obsolete. If you create most of the documents you fax (letters, memos, and so on) on your Mac, you should seriously consider investing in a fax modem. Most of them now have easy-to-use software that makes faxing a document from your Mac almost as easy as printing it. And fax modems are reasonably priced — street prices are less than $400 for modems with high fax- and data-transmission speeds. But before you go out and buy a fax modem, read the following tips.

☑ Confused about modem specs? You're not alone. A modem's data-transfer rate is stated in bps (bits per second). You can also tell a modem's speed by the CCITT (Comité Consultatif Internationale de Télégraphie et Téléphonie) standards it supports. The bottom line is to look for a modem that's capable of fast data transmission, preferably with a data-transmission rate of 14.4 Kbps (the CCITT's V.32bis rating) and V.42bis data compression and V.42 error control; for fax transmissions, look for the CCITT V.17 rating (14.4 Kbps) for both sending *and* receiving. Don't go below 9,600 bps for either data or fax transmissions.

☑ Although few fax machines operate at 14.4 Kbps now, it's still worth buying a high-speed fax modem — within a year, more machines will operate at the higher speed, and in the meantime, your modem's software will automatically slow the transmission speed down to match that of older devices.

☑ Very carefully read the description of what the modem does. Some fax modems may have different speeds for fax and data transmissions, but this fact is seldom clearly explained. For example, a modem that can send a fax at 9,600 bps may transmit data at only 2,400 bps, or the modem may have a fax-send



PASS ALONG AN HEIRLOOM MORE VALUABLE THAN GOLD.

LIFE.
When you make a bequest to the American Heart Association, you're passing along a precious legacy. The gift of life. That's because your contribution supports research that could save your descendants from America's number one killer.

What's more, your gift doesn't have to diminish the estate you leave to your family. It may, in fact, reduce estate taxes and current taxes as well.

To learn more about the Planned Giving Program, call us today. It's the first step in making a memory that lasts beyond a lifetime.

American Heart Association

This space provided as a public service.

speed of 9,600 bps and a fax-receive speed of only 4,800 bps.

☑ If you want to use AppleTalk Remote Access (ARA) — and if you're seriously thinking of telecommuting, ARA is essential — you need a modem that is capable of data transmission at 9,600 bps; 14.4 Kbps is even better. Make sure that the modem comes with a driver file for ARA (not all do).

☑ Send-only fax modems are slightly less expensive than modems that can also receive faxes, but unless you already have a fax machine and know that you will never want to use your modem to receive faxes, you may as well pay a little extra for the ability to receive them too.

☑ If you fax from your PowerBook, an internal modem is a must. Although an internal modem is more expensive than most external models, the ease of using a built-in fax modem makes it well worth the extra cost. Another benefit is that you don't have to carry a printer around: Simply dial a fax machine, and let it print out your files.

☑ A fax modem receives a fax as a graphic, not as editable text. To convert the fax to text, you must scan it, using OCR (optical character recognition) software. This process will become easier with forthcoming OCR fax software from Calera and Stf Technologies that will automatically convert faxes to editable text.

☑ Look for products that use enveloping, a technique that lets you place several fax-formatted files in an envelope to be sent as a single fax transmission.

☑ For good-quality text in sending faxes, make sure you have ATM (Adobe Type Manager) installed or use a non-PostScript rasterizer such as Freedom of Press.

☑ If possible, test a few fax modems with documents that combine text and graphics before making a buying decision. Modems differ widely in the quality of the graphics they produce, and testing is the only way to be sure you're getting the best one.

☑ For the ultimate in convenience, you can get fax modems that manage your voice mail. The modem digitizes phone messages and stores them on your Mac's hard disk.

Anti-virus software that's tough on viruses, not on you.

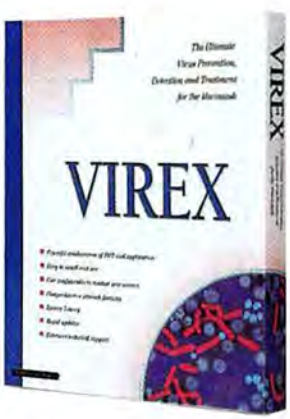
Computer virus problems within your organization can be a nightmare. New Virex® 4 is a network manager's dream. Its powerful network features enable Macintosh network managers to configure and update individual user machines from a single Mac. Network managers can also gather information about virus attacks within the organization. And Virex has always been the easiest anti-virus product to use. With Virex, you won't be tied up with lots of user questions about your anti-virus software.

NEW NETWORK FEATURES

USER-UPDATABLE

EASY TO USE

GREAT SERVICE & SUPPORT



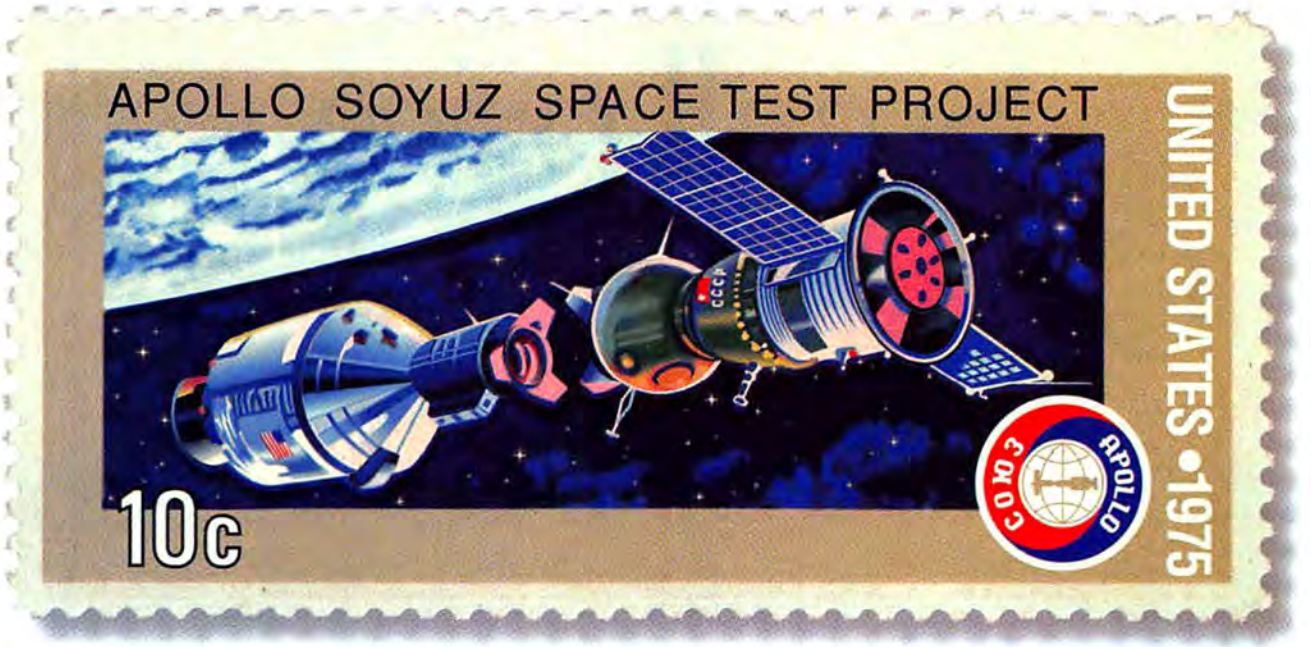
Virex is available in single units and in an attractively-priced 10-PAK. See your favorite retailer to purchase Virex today or call us about our convenient site licensing program. Virex is also available for IBM-PC and compatible computers.

DATAWATCH

PO Box 51489 • Durham, NC 27717
(919) 490-1277 ext.1022 FAX:490-6672
BBS: 419-1602 (8,1,N)

© 1992 Datawatch Corporation. Datawatch and Virex are registered trademarks of Datawatch Corporation.

CIRCLE 75 ON READER SERVICE CARD.



Great Moments In Connectivity.

In 1975, the world looked on in awe as the Soyuz and Apollo space capsules broke down traditional barriers and joined together in space.

The link-up was hailed as a marvel of technology. Today's technological marvels come in smaller packages. Introducing PathFinder from Dayna. The first AppleTalk router to break the $1,000 price barrier. As well as bringing *glasnost* to the Ethernet and LocalTalk sides of your network.



At just $899, PathFinder makes LocalTalk to Ethernet routing easy and affordable.

PathFinder has connectors for LocalTalk and all Ethernet cable systems, from thick and thin Ethernet to 10BASE-T. It supports AppleShare and NetWare for Macintosh, the most popular Macintosh network operating systems, as well as any other AppleTalk-based communications software. All for the remarkably low price of $899.

But the biggest breakthrough is PathFinder's amazing ease of use. For small networks, PathFinder is ready to plug and play right out of the box. On larger networks, it can be configured to suit any need. And unique to PathFinder is an "Automatic" setting that combines LocalTalk and Ethernet segments automatically into one seamless network.

Trust the connectivity experts at Dayna to make a product this good, so easy to use and so affordable.

If you're used to routers that sell at prices that are out of this world and require a rocket scientist to set up and maintain, it's time you hooked up with Dayna. Call (801) 531-0600 extension 351 today and ask about connecting with PathFinder.

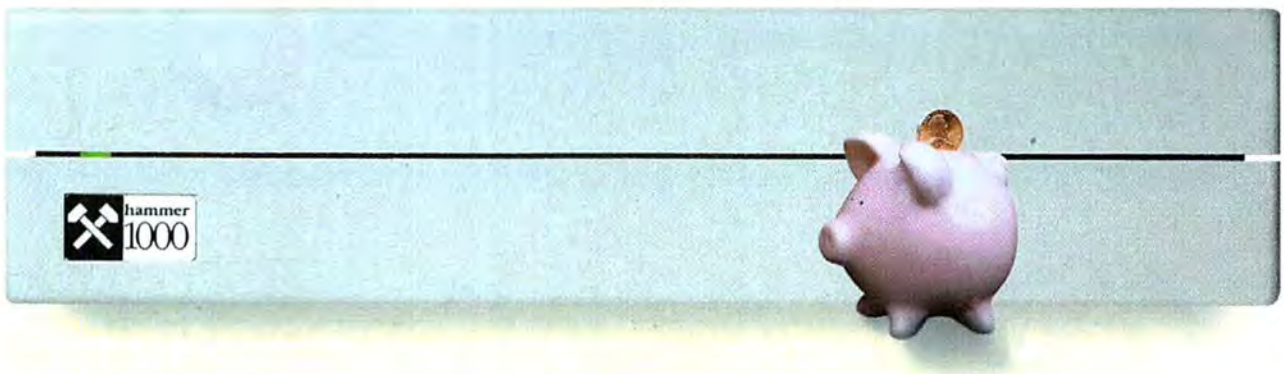
Dayna®

We Connect People And The Computers They Use.℠

CIRCLE 133 ON READER SERVICE CARD.

PathFinder is a trademark of Dayna Communications, Inc. All other product names are trademarks of their respective holders. © 1992 Dayna Communications, 50 South Main Street, Fifth Floor, Salt Lake City, Utah 84144. FAX: (801) 359-9135

Small price. Gig performance.



Introducing the hammer1000FMF SCSI-2 Drive

If you've been looking to save a bundle on a gigabyte of power, may we proudly present the very affordable hammer1000FMF.™

Built using the fastest drive mechanism in the world, the 1000FMF is a compact, external drive that works with any Macintosh (an internal version works with most Mac models). And it comes with one feature you won't find on any other drive: the Hammer name.

At FWB, we use only the highest-quality components in our Hammer products, such as gold-plated connectors to ensure reliable high-speed transfers, and extra-thick, twisted-pair, double-shielded cables. We then carefully assemble and thoroughly test each unit—by hand—to ensure the quality and performance you've come to know from FWB.

This quality is backed by our industry-leading reputation for reliability: a two-year standard warranty, and Hammer PremiumService™ for as long as you own the drive. Want more? The 1000FMF also comes with our advanced Hard Disk ToolKit™ software for unparalleled control, security, and versatility.

So if you've been thinking you'd have to make a tradeoff to get the very best in a gigabyte drive, check out the performance of the hammer1000FMF.

It's a very small price to pay.

hammer1000FMF
9.5ms seek time
10 MB/sec Fast SCSI-2 burst transfer rate
5400 RPM spindle rotation

hammer1000FMF*	**$2,799**
hammer1000FMFis	**$2,399**

HAMMER PREMIUM SERVICE

The hammer1000FMF is available exclusively at authorized Hammer dealers worldwide. For more information and the name of the Hammer dealer nearest you, call FWB at (415) 474-8055, or fax us at (415) 775-2125.

FWB incorporated

HAMMER

© 1992 FWB, Inc. Hammer, hammer1000FMF, Hard Disk ToolKit, and PremiumService are trademarks of FWB, Inc. *Fast Media Format

CIRCLE 81 ON READER SERVICE CARD.

Input Devices

☑ Of course *you'd* never forget to do this, but it does happen: If you're buying off the shelf, make sure the device you get works with the Mac. Some manufacturers produce Mac and PC versions of the same device that are packaged similarly.

☑ If you're left-handed, make sure you try the mouse or trackball before you buy. Some models work just as easily with either hand, others you may have to rotate to use comfortably, and some are designed exclusively for the right hand.

☑ Before you buy an input device, find out what the return policy is. It can take several days to get used to a new keyboard, mouse, or trackball. If, after that time, you still aren't comfortable using it, you should be able to return it.

☑ Don't be too swayed by the argument that one device is more ergonomically correct than another. This buzzword is applied to most devices and has become virtually meaningless. More than what products you use, how you work often influences your comfort and health.

☑ For maximum comfort, look for devices that keep your hand and wrist relatively level. Avoid products that make you flex your wrist.

☑ To work more comfortably, consider buying (or making) a wrist rest to use with your mouse, trackball, or keyboard.

☑ Beware of all-in-one keyboards that combine trackballs and keyboards that can be removed or rearranged. They're good for southpaws — you can put the numeric keypad



If, like most other Mac users, you spend a lot of time entering data into your Mac, you probably wish for things that would make the whole process a little easier and a lot more comfortable — such as a trackball that fits your hand, a keyboard that doesn't hog desk space, or a mouse you can use when giving presentations. Luckily, there are plenty of good, reasonably priced third-party input devices that let you work more comfortably and more productively.

or trackball in a more convenient position — but check out the price: Sometimes that sort of combination package costs more than buying the individual parts separately.

☑ The higher a mouse's or trackball's resolution, the more responsive the device is.

☑ The software that comes with your mouse or trackball is an added value — it can boost productivity by letting you control speed or assign certain actions (such as cutting and pasting) to certain clicks — but most users never make the most of it. Find out what the software can do before you buy the device, and once you own it, take advantage of the software's features.

☑ If desk space is an issue, trade in your mouse for a trackball, but first find out the trackball's dimensions — some are surprisingly large.

☑ Hate the PowerBook's trackball? Supersmall mice and trackballs (Appoint's Thumbelina Mac and MicroSpeed's MicroTRAC, for example) plug in to the PowerBook's ADB port and are tiny enough to be tucked into the carrying case when you're on the go.

☑ For presentations, look for cordless mice and miniature trackballs you can hold in your hand.

☑ A digitizing tablet that uses a pen or stylus for input gives you extreme control, but unless you spend a lot of time using painting or photo-editing applications, you probably don't need one.

☑ What's the input device of the future? Voice-recognition products that let you *tell* your Macintosh what to do. Articulate System's Voice Navigator is the current state-of-the-art device. Look for future developments from Apple too.



DocuMorphosis

An ordinary caterpillar is miraculously changed into a vibrantly colored, graceful butterfly. It's one of nature's most awe-inspiring events.

Now, you can share in the splendor of a similar magical event: DocuMorphosis™. Transform dull looking pages into exciting, attention grabbing documents. Add excitement with logos, photographs, line drawings, charts — in 24-bit color or 256 shades of gray. See your applications enriched with new meaning and importance — with the affordable ScanMaker II, by Microtek.

Place the image you want on the scanner. ScanMaker II has built-in features to make the transformation easy. The results will be astonishing.

Images are crystal clear, brimming with all the rich color and fine detail of the original at resolutions up to 1200 dpi. You can even scan printed text directly into your word processing program with optional OCR software. No more re-typing!

Find out how simple and convenient scanning can be. Experience the wonder of DocuMorphosis. Bring new life to your documents — for under $1000. ScanMaker II. For more information, or the name of your nearest authorized Microtek dealer, call 1-800-654-4160.

MICROTEK
Better Images Through Innovation.

©1992 Microtek Lab, Inc. 680 Knox Street, Torrance, CA 90502. All rights reserved. ScanMaker is a registered trademark and Microtek and DocuMorphosis trademarks of Microtek Lab, Inc.

CIRCLE 179 ON READER SERVICE CARD.

How to Buy

Scanners

☑ Scanners convert an image into digital information that is understood by the Mac and can then be edited with image-editing software or, in the case of OCR, a word processor.

☑ When comparing similar scanners, take along the kind of photograph, document, or piece of art you'll be scanning so that you can compare ease of use and quality of results.

☑ Working with large images or images that contain several grays or colors? Look for a scanner that has the ability to save the file to disk rather than to RAM — gray-scale and color scanning of images requires *lots* of memory.

☑ If you need to pick up fine details or small type in the work you're scanning, go for a scanner with a high resolution (expressed as dots per inch, or dpi). Remember, however, that a scanner with high resolution also picks up dirt and flaws on the original art. Standard resolution is 300 dpi.

☑ If you'll be using a sheetfed scanner to scan several documents in succession (for example, if you're doing OCR work), look for one that has an automatic document feeder or a remote-scan button, which lets you press a button every time you insert a new page to be scanned, as you would with a photocopier. This feature will add about $500 to the scanner's price, but it will let you load the documents, start the scanner, and then get on with other work.



Having your own scanner used to be a luxury. Now, however, prices are coming down — street prices of some color scanners are lower than $1,500 — and as prices plunge, the number of uses for personal scanners is soaring. Whether you want to scan office documents into your Mac using OCR, or just want to pick up the occasional piece of spot art, the following information should help you find the right scanner.

☑ You'll probably pay more if the scanner comes with image-editing software — it can be the company's own software or a third-party product, such as a special version of Adobe's Photoshop (Photoshop LE, which doesn't include separation capabilities) or Fractal Design's ColorStudio. The advantage of such software is that it lets you scan and edit images without having to switch among programs.

☑ If you already own a copy of Photoshop, look for scanners that include a Photoshop plug-in — software that lets you scan from within the program.

☑ If you want to use the scanner for OCR work, make sure the OCR software included is easy to use and scans in text accurately — otherwise you may spend as much time editing the text as you would have spent typing it.

☑ Bargain hunters will be happy to know that most monochrome hand scanners cost less than $500. The good news is that they're small and convenient and even let you scan on vertical surfaces; the bad news is that they're suitable only for scanning small items such as logos — they aren't good for doing extensive OCR work.

☑ Determine how the scanner you're considering is connected to your Mac. Most connect by means of the SCSI port (some require a special interface box to do so), a few are connected through the modem or printer (serial) ports, and others require the installation of a special card. A SCSI connection has the advantage of fast data transfer and makes the scanner easier to install (all Macs from the Plus up have a SCSI port).

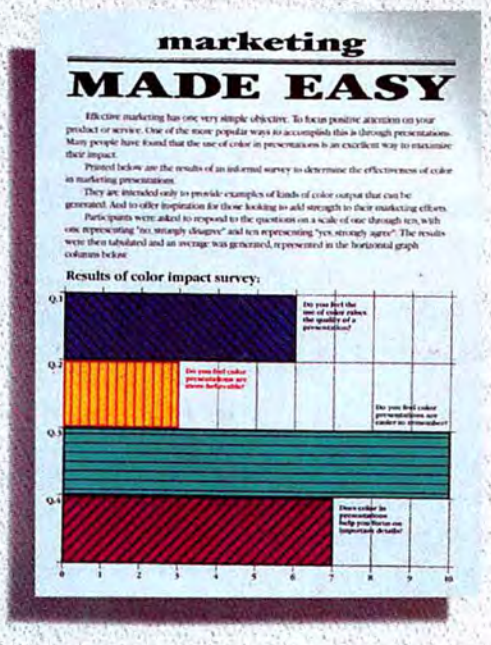
Make it clear.

Make it colorful.

Make it happen.



The HP DeskWriter 550C for the Mac. $1,099.



Great things happen when you have a DeskWriter 550C printer from Hewlett-Packard. Because it's never been so easy to print high-quality black and white. And brilliant color.

The DeskWriter 550C prints true black at 300 dots per inch. Clean, crisp and sharp, for the kind of professional print quality you expect from HP.

For added impact, the DeskWriter 550C makes it easy to add color to your work. The black and color cartridges are built in and work together. Giving you access to millions of colors.

You can get an HP DeskWriter 550C, or the DeskJet 550C for PCs, for a suggested list price of only $1,099.* So if you're looking for an affordable way to make a powerful impression, get a DeskWriter 550C printer. Then see what happens.

For another cost-effective way to get great-looking black and white and color, the HP DeskWriter C and the DeskJet 500C are now available for a low price of just $779.*

Call 1-800-552-8500, Ext. 7119 for the name of the authorized HP dealer nearest you.† To receive information by fax call 1-800-333-1917, choose HP FIRST, document #9607.

DeskJet Printers Make it happen.

HEWLETT PACKARD

© 1992 Hewlett-Packard Company PE 12216
*Suggested U.S. list price. †In Canada call 1-800-387-3867, Ext. 7119.

Secondhand Equipment



Older Macs such as the Mac II and the Plus may seem quaint next to their newer, streamlined siblings. But before you buy a new machine you might use only for business emergencies or for personal use, consider secondhand Macs; many still have plenty of life left in them. Of course, there are always hazards in buying used equipment, but if you follow these suggestions, you can minimize the risks.

☑ Secondhand Macs are available through several sources: classified ads, user groups, auctions, computer swaps, and companies that specialize in selling used Macs. You'll pay more if you buy through a company, but you should get some sort of guarantee — often money-back — in return for the higher price. Buying from a user group is a good bet, because of the technical support available.

☑ Be careful about low-priced computers — the less expensive the Mac, the more likely it is that you'll have to spend money and time either fixing it or upgrading it. If you know what you're doing, a damaged Mac can be a great deal. If you don't, you'll probably end up with a useless box.

☑ A secondhand Mac's age is not as important as its condition: Appearance is a good indication of how the Mac's been treated.

☑ Check out Mac Pluses for a good low-end deal. It's possible to find Pluses with 4 megabytes of memory for around $500. Before buying a Plus, though, find out if it has its original power supply. If it does, there's a good chance that it will need a new one before long.

☑ Another good buy is an SE *without* an internal hard drive. Add your own hard drive for a low-priced, reliable machine.

☑ Are you looking for something more advanced than a Plus or an SE? By adding some simple upgrades (such as a PMMU chip and a high-density floppy-disk drive) to a Mac II, you can get reasonable performance for a very reasonable price.

☑ To avoid expensive repairs, examine the floppy-disk drive of a used Mac carefully. Make sure it can initialize a new disk, that it can read some good disks you've brought from home, and that the Eject function works smoothly.

☑ If the Mac is noticeably slow, check its speed with the System Index utility, included with Mac expert Larry Pina's *Macintosh II Repair and Upgrade Secrets* (Carmel, Indiana: Hayden Books, 1990). This utility includes a test and a chart that tell you how fast Macs — starting with the Plus — should be. A significant speed problem can be fixed only by a logic-board upgrade.

☑ When buying a Mac with a 9-inch screen (an SE or a Plus, for example), take along a measuring tape so you can check the active-screen size. It should measure just under 7.25 x 4.75 inches. If the active screen is smaller, the power supply may be in trouble.

☑ If you plan to connect an external drive, modem, or printer to the Mac, make sure you test the connections before buying.

☑ If you're buying an SE, ask whether it has a SuperDrive floppy-disk drive. Older SEs don't, and they won't be able to read 1.44-megabyte floppy disks or DOS disks.

☑ It's not worth it to buy secondhand peripherals such as hard-disk drives or modems. New models are more reliable, have warranties, and are competitively priced.

Mail-Order Products



Buying from a mail-order company is the easiest way to shop for Mac hardware and software — or a Mac itself, for that matter. Find an ad in a computer magazine, get out your credit card, dial the number, and place your order. Most mail-order houses promise big savings; fast delivery; and sometimes, money-back guarantees. But before you shop by phone, look for the right mail-order company. A little caution can protect you from fly-by-night operations and shoddy merchandise.

☑ Well-established companies are unlikely to disappear overnight, but if you're not sure how well established a company is, it pays to do a little research and ask a few questions. Post a message on a bulletin board (*MacUser's* on-line service, ZiffNet/Mac, for example), and ask other users for feedback.

☑ Know exactly what you want before you call. It's hard to browse over the phone, and in many cases, the person on the other end is trained only to take your order, not to help you make a decision. Magazines, on-line forums, and user groups are all good places to seek advice.

☑ To avoid having to return merchandise, find out whether the product you're interested in is compatible with your system. You should be able to get help from an Apple dealer, or you can call Apple customer service at 800-776-2333.

☑ Whenever possible, use a credit card. Some credit-card companies do such things as double your warranty or give you a refund if you find a lower price elsewhere. Even if your credit-card company won't go that far, it's worth using plastic to pay for your purchases. If the product is never delivered or is defective, you can contest the charge with your credit-card company, which will in turn deal with the mail-order company.

☑ Confirm the price when you place your order. Sometimes the printed price isn't current or there are hidden charges. If the price is higher than you thought it would be, it's worth trying to see if the company will accept the lower payment. You should also find out how much the delivery charge is.

☑ Some companies will waive the delivery charge if you order at a certain time of day (after 8 p.m., for example). The savings depend on what and how much you buy, but you may be able to shave at least $5 off the final cost.

☑ Ask about delivery methods — find out what carriers are used, how fast they are, and how much each one costs.

☑ Because you're buying sight unseen, make sure the company has a return policy you're comfortable with. In most cases, a money-back guarantee or a trade-in policy is a must. Find out if you're responsible for paying shipping charges on returned goods and whether you'll be charged a restocking fee.

☑ Before you use your new merchandise, make sure it's exactly what you ordered — the correct model or version number, for example. Errors are not uncommon, and it's easier to return goods before they've been unpacked.

☑ If you're buying hardware, find out how the company handles repairs or replacements. Ask how quickly you can expect to get your equipment back if you have to send it in for service and whether the company offers loaner equipment.

☑ Technical support varies from company to company. Unless you're a techno-expert, it's best to work with a company that offers free technical support.

MAC DEPOT™

1-800-222-2808

4453 REDONDO BEACH BLVD., LAWNDALE, CA 90260
FAX: 310-214-0932 Canada Toll-Free: 1-800-548-2512

Established 1985

6 reasons to order from Mac Depot:

- The lowest prices
- We carry over 2,500 products
- We only sell quality products
- Most knowledgeable sales staff
- No-headache ordering
- One of the largest Mac mail order firms

$Save$ on KENSINGTON

$Save$ on DAYSTAR DIGITAL

$Save$ on newgen

$Save$ on Supra Corporation



$Save$ on ADOBE

$Save$ on JMAX®

Turn the page for 11 more pages of unbelievable deals!

$Save$ on PLI

$Save$ on WACOM

$Save$ on ALDUS

$Save$ on SII Seiko Instruments

$Save$ on CLARIS®

Call 800-222-2808

MAC DEPOT™

Lowest Prices!

newgen — The Hi-Res People

30-Day Money Back Guarantee

Invasion of The Killer 'Bs'



NewGen B Series Laser Printers
400 dpi, 8ppm, 11x17",
6 Mb RAM, 25Mhz RISC

TurboPS Personal Series™ Laser Printers



Lowest Prices!

Call for additional pricing

	Turbo PS/300P	Turbo PS/400P	Apple NTR	QMS PS-410
Memory	2Mb/16Mb	4Mb/16Mb	3Mb/4Mb	2MB/6MB
Pages/Minute	4	4	4	4
Resolution	300 dpi	400 dpi (IET)	300 dpi	300 dpi
Fonts	35	35	35	45
Price	$1,239	$1,699	$1,799	$1,699

Best Buy MacUser

UMAX

Bundled with Adobe Photoshop 2.0

"...UMAX UC630 the fastest scanner, exhibited excellent color accuracy" MacUser

1200 dpi, 24bit color scanner

UC-1200S $2999.00

600 dpi, 24bit color scanner

UC-630 $1139.00

Transparency Adapter $699.00



UC-1200S Shown here with optional Transparency Adapter

WACOM

Cordless, Pressure-Sensitive Drawing Tablets



30-Day Money Back Guarantee

50973	12X12 STANDARD	649.00
52001	12X12 ELECTROSTATIC	719.00
55046	12X18 ELECTROSTATIC	1149.00

1-800-222-2808

Great Service!

Color Printers





General Parametrics

56025 Spectra Star Model 430 $4995
60765 Spectra Star Model 450 $Call
(Includes 35mm Slidemaker)

Hewlett-Packard

60746 PaintWriter 550C $729
60116 PaintJet XL300 $2399
60117 PaintJet XL300 Postscript $3399

Supermac

60837 ProofPositive Full-Page
Printing System $7899

Seiko Instruments

60408 Personal ColorPoint PSE $3699
60106 ColorPoint PS 6MB $3999
60104 ColorPoint PSX B-Size
Model 14/18MB Call

$SAVE$





SEIKO CM1445
14" Triniton Monitor

Radius
24-Bit accelerated
video board

Super Bundle Price

$779.00

radius Rocket Accelerator

Increases the performance up to 8 times faster than MacII

- 68040 Microprocessor
- Supports up to 128MB of RAM.
- Built-in PDS Slot allows future expansions.



- Use RocketShare for Parallel Processing between your Mac CPU and multiple Rockets.

55915 Rocket 25i 1199.00
55132 Rocket 1599.00
60338 Rocket 33 1989.00
60603 RocketShare 419.00

Call 1-800-222-2808

MAC DEPOT™

We will beat the competition!

PARTICIPATING DEALERS ONLY — MONEY BACK 30 DAY GUARANTEE

100% Compatible

SWAP UP

3 Year Warranty

PowerCache Excellent Overall Value

MacUser ★★★★½

MacUser LABS Bottom Line Pick

WINNER MacWEEK 1991 Target Award

DAYSTAR DIGITAL

Universal PowerCache Family



Universal PowerCache — IIci • LC • IIsi — 33,40,50 MHz — II • IIx • IIcx • SE/30

33Mhz	$595.00
40Mhz	$795.00
50Mhz	$1165.00

Multiple Award-Winning Hardware

These prices include adapters

Newer™ TECHNOLOGY

Innovators in Power and Performance

PowerBook Duo Memory Modules!

Powerbook 160/180 Memory Cards



5-year warranty

60772	2MB	$139.00
60774	6MB	$269.00
60776	10MB	$479.00

Pseudo-static (low-power)

IMAGE MAGIC™

Digital Signal Processor

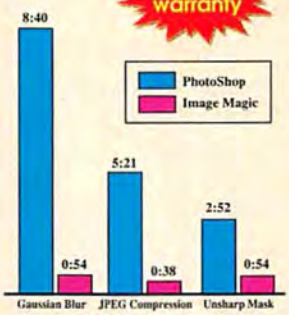
Make Adobe Photoshop™ Filters Fly!



PDS $689.00

NuBus $759.00

2-year warranty



SyQuest Removable Hard Drives



MASS microsystems

DataPak45 $489.00

DataPak88 $599.00

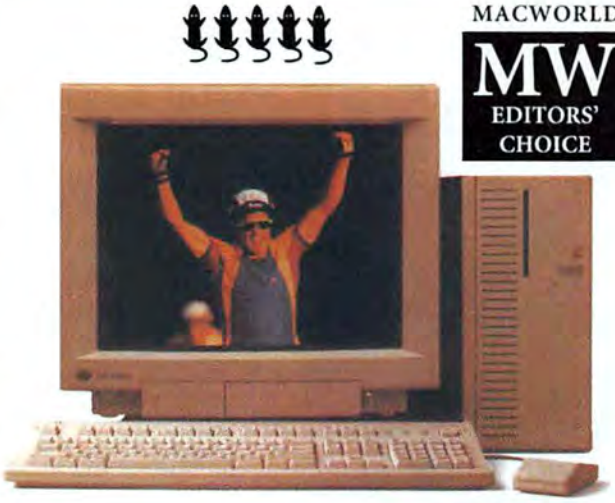
1-800-222-2808

Super Blowout!

E-MACHINES

E-Magination at work™

60532	...T19 II	$2399.00
55487	...Futura SX	$499.00
55489	...Futrua MX	$879.00
60531	...Futura LX	$979.00
55490	...DoubleColor SX	$399.00
55491	...DoubleColor LC	$399.00
60530	...DoubleColor LX	$699.00
55896	...ColorLink EX/T	$649.00
60529	...ColorLink DC/T	$519.00
55897	...ColorLink SX/T	$649.00
60709	...PowerLink Presentor	$499.00
60710	...PowerLink DeskNet	$659.00



MACWORLD MW EDITORS' CHOICE

COLORPAGE T16 II

$1299.00

HEWLETT PACKARD

With 3-YEAR WARRANTY



Deskwriter	$379
Deskwriter C	$499
Deskwriter 550C	$799

Prices include cable!



TARGUS

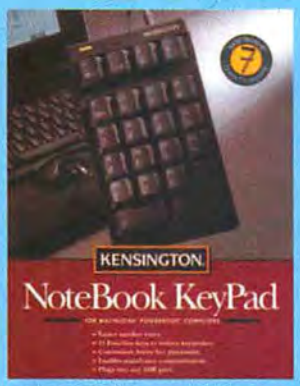
60090	UNIVERSAL CARRY CASE 62.00
60089	POWERBOOK PREMIER LEATHER 129.00
50907	PREMIER LEATHER CASE ..179.00
50910	DELUXE CASE/SE 69.00

1-800-222-2808

MAC DEPOT™ The Deal of the Century!

KENSINGTON

60533	NOTEBOOK TRAVELLER W/ TOUCHBASE	89.00
60478	NOTEBOOK TRAVELLER POWERBOOK 100	29.00
60811	MICRO SAVER	45.00
51138	TILT/SWIVEL FOR COMPACT MACS	25.00
51139	KEYBOARD SHELF	39.00
55150	POWER TREE 20	25.00
55151	POWER TREE 50	39.00
51137	ANTI-GLARE FILTERS	CALL
50936	TURBO MOUSE 3.0	79.00
51041	PASS PROOF SE/II	45.00
60820	PASS PROOF IICX/IICI	45.00
55157	PASS PROOF CLASSIC	45.00
55466	EXTRA LONG ADB CABLE	29.00
60479	MODEM FAX 20	5.00



NoteBook KeyPad

Makes number crunching fast and easy on your PowerBook with arrow and function keys.

$99.00

TurboMouse 4.0

The world's best Trackball with intelligent software.

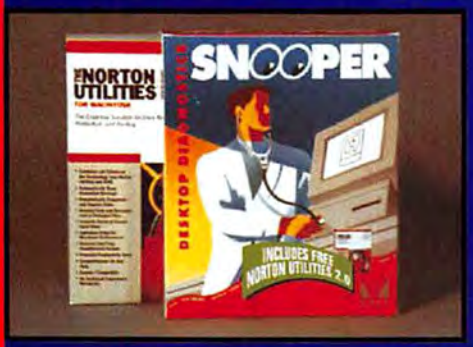
$105.00



DESKTOP DIAGNOSTICS

SNOOPER

SPECIAL OFFER: BUY SNOOPER GET NORTON UTILITIES 2.0 FREE!



UTILITY DEAL OF THE CENTURY

Software only **$119.00** Software kit **$149.00**

MAXA

PSI



Communications made easy

COMSTATION 2 279.00
9600BPS SEND/REC. FAX MODEM

COMSTATION 3 399.00
V.32BIS, 14.4 BPS SEND/REC. FAX MODEM

COMSTATION 4 329.00
V.32, 9600BPS SEND/REC. FAX MODEM

FREE cable and software

1-800-222-2808

Madness Sale!

60551	ClarisWorks	189.00
60652	FileMaker Pro	259.00
60653	MacProject Pro	389.00
50591	MacWrite II	89.00
60483	MacDraw Pro	249.00
50547	MacDraw II	139.00
55297	Resolve	169.00
50576	MacPaint	85.00
51127	Hypercard	139.00
50262	Claris CAD	589.00

CLARIS®



MICRON

SE/30 Deal of the Century!

8-Bit Video
$199.00



24-Bit Video
$349.00

Limited Quantity!

Color Boards for the Apple 13" and compatible monitors

High Capacity Removable Media Solutions



Lowest Prices!

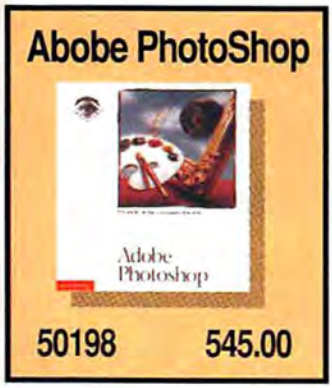
PLI

60268	Infinity 40MB Removable	$489
55210	Infinity 88MB Removable	$599
60281	Infinity Floptical 21MB	$469
60836	Infinity Magneto Optical	$1399

Call 1-800-222-2808

MAC DEPOT™

Make your Mac life easier with MacDepot!



Accesories

AMERICAN
50948 UPS-110SE BATTERY BACKUP 215.00
50947 UPS-370CI BATTERY BACKUP 335.00

APPLIED
60469 POWERBOOK CHARGER & CONDITIONER 149.00
60470 POWERBOOK AUTO ADAPTER 89.00

AXION
60745 ELECTRONIC SWITCH BOX 115.00

BTI
60640 POWERBOOK BATTERY 140/145/170 73.00

CANNON
60559 BATTERY PACK 29.00
60561 LONG PLAY POWER PACK 219.00
60560 MINI LCD & LONG PLAY KIT 389.00
60562 RC-250 ACTION SET 64.00
60556 RC-250 MULTI-ANGLE LENS SET 119.00
60557 VIDEO FLOPPY DISK 10 PACK 79.00

COSTAR
55432 ADDRESS WRITER 445.00
55912 ORGANIZER JR. FOR SMALL PRINTERS 69.00
55911 ORGANIZER FOR ALL PRINTERS 169.00

ORANGE MICRO
60439 GRAPPLER II SP 119.00

PASTEL
60222 TRAVEL CASE POWERBOOK 59.00
60223 DAYMAKER TRAVEL CASE POWERBOOK 109.00

TENBA
55474 POWERBOOK CARRY CASE MODEL 415C 99.00
55730 POWERBOOK CARRY CASE MODEL 416 109.00

Business

ABACUS
50876 STATVIEW SE+GRAPHICS V1.03 199.00
50875 STATVIEW II V1.03 305.00

ACIUS
50022 4D CALC 225.00
55109 4D COMPILER V2.1 880.00
55124 4D DRAW 215.00
55125 4D GRAPH 3D 215.00
55107 4D WRITEACIUS 215.00
50021 4TH DIMENSION V2.2 549.00
55108 FILE FORCE V1.0.1 195.00

AFTER HOURS
55745 TOUCHBASE V2.0 75.00

AMAZE
60290 CATHY DAILY PLANNER 45.00

BEACON
50991 HYPERBIBLE V2.0 KING JAMES 125.00
50992 HYPERBIBLE NIV. V2.0 125.00

BEAGLE
55849 BEAGLEWORKS V1.01 199.00

CE S/W
55181 ALARMING EVENTS 82.00
50931 CALENDAR MAKER 35.00

CHECKFREE
55071 CHECKFREE 25.00

CONTACT
60632 ACT FOR THE MAC V1.0 239.00

DELTA POINT
60576 DELTAGRAPH PRO 199.00

DENEBA
51158 WEBSTER'S BIG THESAURUS 65.00

FRAME TECH
50438 FRAMEMAKER V3.0 589.00

INDIVIDUAL
60154 RESUME MAKER 39.00

INTUIT
55207 QUICKEN V3.0 45.00

LOTUS
55420 1-2-3 349.00

MAINSTAY
60299 MACFLOW V3.7 219.00
50585 MACSCHEDULE V2.5 155.00
60302 MACSCHEDULE PLUS V1.0 219.00

MECA
50596 MANAGING YOUR MONEY V4.0 139.00

MICROSOFT
60727 EXCEL UPGRADE V4.0 99.00
60701 FOXBASE + SINGLE V2.01 270.00
60724 FOXBASE + RUNTIME V2.01 349.00
60723 FOXBASE + 6 PACK V2.01 429.00
55583 PROJECT V1.1 439.00
55581 SCHEDULE + 5 USER 129.00
60728 WORD UPGRADE V5.0 139.00
60664 WORKS V3.0 158.00
60725 WORKS UPGRADE V3.0 89.00



NOLO PRESS
50965 WILL MAKER V4.0 39.00

ON TECH
55743 MEETING MAKER 5 USER 305.00

PORTFOLIO
50381 DYNODEX V2.0 53.00
60651 DYNOPAGE V1.7 69.00

POWER UP
51149 ADDRESS BOOK PLUS V2.0 73.00
51148 CALENDAR CREATOR 39.00

QUE S/W
60151 TYPING TUTOR V 29.00

REALITY
5177 WEALTH BUILDER 139.00

SHANA
55198 INFORMED AUTOFORM 125.00
60280 INFORMED DESIGNER V1.2 149.00
55197 INFORMED MANAGER V1.0 99.00

SOFTSYNC
60279 ACCOUNTANT INC. V3.0 329.00

SPINNAKER
55076 CERTIFICATE MAKER 22.00
55070 FAMILY MATTERS 32.00

SYMANTEC
56024 GREATWORKS 2.0 249.00
50666 MORE V3.1 250.00

SYNERGY
50490 KALEIDAGRAPH V2.1 139.00

TELEWARE
55115 MIND YOUR OWN BUSINESS V2.0 139.00

TIME SLIPS
50923 TIMESLIPS III V2.0 189.00



TMAKER
60308 WRITENOW & GRAMMATIK V3.0 149.00

WORD PERFECT
56016 WORDPERFECT V2.1 269.00
55302 WORDPERFECT OFFICE V3.0 90.00
55310 WORDPERFECT OFFICE V3.0 5 USER 305.00
55311 WORDPERFECT OFFICE V3.0 20 USER 915.00

Communication

CE S/W
60736 QUICKMAIL 10 USER V2.5.1 379.00

FARALLON
50921 TIMBUKTU REMOTE V3.0 135.00
55367 TIMBUKTU REMOTE ACCESS PACK V3.0 915.00
50920 TIMBUKTU V4.02 135.00
50919 TIMBUKTU 30 PACK V4.0 1299.00

MICROSOFT
55582 MAIL 5 PACK V3.0 249.00
55769 MAIL SERVER V3.0 249.00

SITKA
50927 TOPS V3.1 185.00
50928 TOPS REPEATER 125.00

SOFTWARE VENTURE
60617 MICROPHONE PERSONAL EDITION V1.7 72.00
55645 MICROPHONE II V4.0 219.00
60817 MICROPHONE PRO 00

Desktop Publishing

ALDUS
60510 PAGEMAKER 4.2A 479.00
50852 PERSONAL PRESS V2.0 135.00

BRODERBUND
55824 TYPESTYLER W/ ATM V2.0 127.00

MULTIAD
55440 MULTIAD CREATOR V3.0 515.00

POSTCRAFT
55738 EFFECTS SPECIALISTS V1.04 93.00
55735 LAYOUTS PAGEMAKER 69.00
55736 LAYOUTS QUARK XPRESS 69.00
55737 LAYOUTS READY SET GO 69.00

QUARK
55852 QUARK XPRESS V3.1 579.00

TIME WORKS
50748 PUBLISH IT! EASY V2.1 95.00
50747 PUBLISH IT! 208.00

Drives

APPLIED
50216 1.44MB EXTERNAL 3.5" DISK DRIVE 219.00
55651 PLUS DRIVE PLUS/SE/MACII 289.00
60471 AE FLOPTICAL DRIVE 469.00

CD TECH.
50252 CDROM DRIVE PORTA DRIVE 619.00

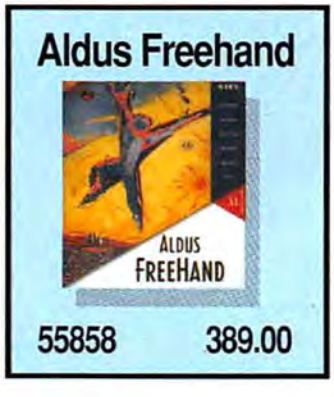
FWB
60758 HAMMER 240IS 939.00
60711 HAMMER 300I 1549.00
60759 HAMMER 425IS 1389.00
60712 HAMMER 600I 1859.00
60713 HAMMER 600FMFI 2265.00
60714 HAMMER 1400I 3159.00
60715 HAMMER 1400FMFI QUADRA 900/950 3929.00
60716 HAMMER 2000I 4399.00
60717 HAMMER 2000FMFI QUADRA 900/950 4775.00
60757 HAMMER 2800FMFI QUADRA 900/950 6709.00
55210 INFINITY 88MB SINGLE REMOVABLE 639.00
55211 INFINITY 88MB TWIN REMOVABLE 1749.00
60718 HAMMER DISK 130 OPTICAL 1599.00
60719 HAMMER TAPE 525 1179.00
60720 HAMMER DAT 2000 1969.00
60721 HAMMER DAT 5000 2209.00
60722 SCSI JACK HAMMER BUNDLE 645.00

MASS MICRO
55396 DATAPAK 45MB 0 FOOT PRINT 499.00
55397 DATAPAK 88MB 0 FOOT PRINT 699.00
55801 DATAPAK MO/128 REWRITABLE OPTICAL 1499.00
60310 FLOPTIPAK 21 529.00

PLI
60569 CDROM EXTERNAL DRIVE 599.00
60282 INFINITY FLOPTICAL 21MB INTERNAL 549.00
60281 INFINITY FLOPTICAL 21MB EXTERNAL 465.00
60268 INFINITY 40MB SINGLE REMOVABLE 539.00
60568 QUICKSCSI NUBUS CARD W/ CABLE 345.00

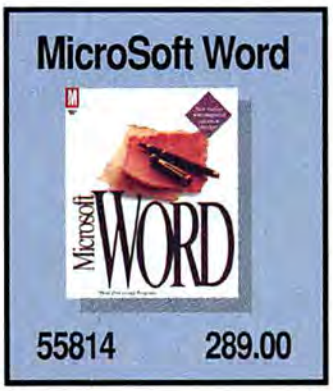
Fonts

ADOBE
50038 COLLECTORS EDITION #1 85.00
50039 COLLECTORS EDITION #2 149.00
50199 PUBLISHING PACK 1 225.00
50200 PUBLISHING PACK 2 275.00
50201 PUBLISHING PACK 3 275.00
50202 TYPE MANAGER V2.0 63.00
50203 TYPE MANAGER + ... 125.00



Call 1-800-222-2808

Compare our low prices!



60589 TYPE ON CALL V2.0 65.00
50204 TYPE REUNION 41.00
50205 TYPE SET 1 HEADLINERS 1 58.00
50206 TYPE SET 2 HEADLINERS 2 58.00
55498 TYPE SET 3 BEST SELLERS 137.00

ALTSYS

55112 FONTASTIC PLUS 59.00
60424 FONTOGRAPHER V3.5 255.00
55866 METAMORPHOSIS PRO V2.03 89.00

DUBL-CLICK

55854 MENUFONTS 45.00

Graphics

ABRACADATA

50347 DESIGN YOUR OWN HOME/ARCHITECTURE 59.00
50348 DESIGN YOUR OWN HOME/INTERIOR 59.00
50349 DESIGN YOUR OWN HOME/LANDSCAPE 59.00

ADOBE

55873 ILLUSTRATOR W/ ATM V3.2 359.00
50198 PHOTOSHOP 2.0 545.00
55816 PREMIERE 299.00
60729 STREAMLINE V2.2 129.00
50937 TYPE ALIGN 59.00

ALDUS

50355 DIGITAL DARKROOM V2.0 255.00
55201 DESIGN TEAM 839.00
55858 FREEHAND V3.1 389.00
55265 GALLERY EFFECTS 125.00
60574 INTELLIDRAW 195.00
60187 PERSUASION V2.1 319.00
50739 PREPRINT V1.5.1 320.00
55851 SUPERCARD V1.6 215.00
55413 SUPERPAINT V3.0 130.00

BRODERBUND

55145 BANNERMANIA 35.00
50740 THE PRINT SHOP 35.00

DENEBA

55293 CANVAS V3.0 245.00

EOA

51123 STUDIO 32 V1.0 405.00

FRACTAL

60012 PAINTER V1.2 229.00

MACROMEDIA

51150 FILM MAKER V2.0 449.00
60406 LIFE FORMS 349.00
60400 MACROMIND DIRECTOR V3.1 789.00
55281 MACROMIND THREE-D V1.0 989.00
55441 MAGIC 255.00
50614 MEDIAMAKER V1.0 475.00
55122 MODELSHOP II 579.00
50896 SWIVEL 3D PRO V2.0 445.00
60399 SWIVELMAN V1.0 575.00

SOFTSYNC

55765 EXPERT COLOR PAINT 28.00

Hardware

APPLIED

60770 AXCELL 289.00

55232 FASTMATH LC W/ 68882-16MHZ FPU 139.00
55506 FASTMATH CLASSIC II W/ 68882-16 FPU 149.00
60349 LC POWER SUPPLY 99.00
60348 QUADRALINK W/ SHADOW 269.00
55158 QUICKSILVER W/ 68882-20MHZ FPU 219.00
55231 TRANSWARP CI 50MHZ W/ FPU 1699.00
60339 TRANSWARP CLASSIC 16MHZ 445.00
60340 TRANSWARP CLASSIC 16MHZ W/ FPU 509.00
60341 TRANSWARP CLASSIC 25MHZ 569.00
60342 TRANSWARP CLASSIC 25MHZ W/ FPU 695.00
60343 TRANSWARP CLASSIC 33MHZ 695.00
60344 TRANSWARP CLASSIC 33MHZ W/ FPU 829.00
60345 TRANSWARP CLASSIC 40MHZ 829.00
60346 TRANSWARP CLASSIC 40MHZ W/ FPU 1075.00
55500 TRANSWARP LC 25MHZ 475.00
55501 TRANSWARP LC 25MHZ W/ FPU 609.00
55502 TRANSWARP LC 33MHZ 609.00
55503 TRANSWARP LC 33MHZ W/ FPU 765.00
55504 TRANSWARP LC 40MHZ 809.00
55505 TRANSWARP LC 40MHZ W/ FPU 1035.00
55227 TRANSWARP SE 25MHZ W/ 16MHZ FPU 99.00
55228 TRANSWARP SE 25MHZ W/ 25MHZ FPU 749.00
55229 TRANSWARP SE 40MHZ W/ 16MHZ FPU 999.00
55230 TRANSWARP SE 40MHZ W/ 40MHZ FPU 1149.00
60347 TRANSWARP 040 NUBUS 1825.00

ASANTE

60168 EN/SC ADAPTOR 32K 319.00

BAY ELECTRONICS

51162 SIMM ADAPTER BOARD PS-410 69.00

DAYSTAR

60071 COMBOCACHE IISI 32K 229.00
60072 COMBOCACHE IISI W/ 68882 319.00



55368 DUALPORT IISI 99.00
55369 DUALPORT IISI W/ 68882 185.00
60068 EQUALIZER LC 175.00
60069 EQUALIZER LC W/ 68882 239.00
60409 FASTCACHE IICI 64KB 199.00
60070 FASTCACHE QUADRA 700/900 259.00
60073 FASTCACHE IISI 64K 295.00
60074 FASTCACHE IISI W/ 68882 299.00
60630 FASTCACHE QUADRA 700/900/950 389.00
60631 FASTCACHE IICI 32KB 165.00
60067 POWERMATH LC 115.00
55680 RAM POWERCARD 0MB 429.00
55160 SCSI POWERCARD 0MB 735.00
55136 SCSI POWERCARD 4MB 919.00
55135 SCSI POWERCARD 16MB 1379.00

FUSION

60137 TOKAMAC CI 25i 1199.00
60138 TOKAMAC CI 25 1799.00
60136 TOKAMAC IIFX 33 W/ FPU 2759.00
60141 TOKAMAC ELC 25 LC 899.00
60142 TOKAMAC LC 25 1729.00
60139 TOKAMAC SX 25i SE/30 - IISI 1199.00
60140 TOKAMAC SX 25 SE/30 - IISI 1799.00

MAC DEPOT

60226 MACINTOSH LC FPU 16MHZ 67.00

MACROMEDIA

55264 MACRECORDER VOICE DIGITIZER 109.00
50581 MACRECORDER V2.01 175.00

MONSTER

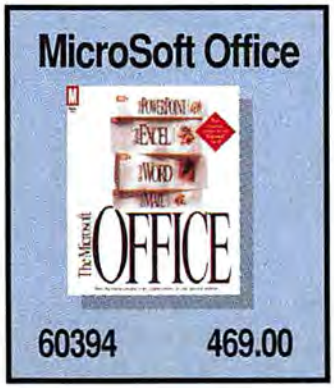
50995 MACSPEAKER 169.00

NEWER

55472 CLASSIC II FPU-882 64.00
60444 IMAGE MAGIC QUADRA / PDS SLOT 689.00
60443 IMAGE MAGIC NUBUS 795.00

ORANGE MICRO

60649 ORANGE 386/25SX 1729.00



RADIUS

60604 SCSI-2 BOOSTER 249.00

UMAX

55729 UC630 COLOR SCANNER SHEET FEEDER 499.00
60095 TRANSPARENCY OPTION UC630 & UC1200 759.00

Input Devices

APPOINT

50668 MOUSE PEN PRO MAC 69.00
55868 THUMBELINA 69.00

CANON

60552 RC-250 CAMERA 469.00
60554 RC-250 CIK B&W 719.00
60555 RC-250 CIK COLOR 859.00
60553 RC-250 SHOOT & SHOW KIT 785.00
60563 RC-570 CAMERA CANON 3199.00
60565 RC-570 CIK CANON 3709.00
60564 RC-570 ESP KIT CANON 4079.00
60566 RC-570 SCSI COMPUTER IMAGING SET 4945.00
60558 SV SCAN SOFTWARE COLOR 42.00
60567 VIDEO VISUALIZER RE-552 2799.00
55307 XAPSHOT CAMERA W/ VIDEO DIGITIZER 845.00

CH PRODUCT

55429 ROLLER MOUSE TRACKBALL 89.00

COSTAR

55303 STINGRAY TRACKBALL BLACK 85.00
55304 STINGRAY TRACKBALL PLATINUM 85.00

CURTIS

51014 FOOT SWITCH MVP MOUSE 22.00
51013 MVP MOUSE ADB VERSION 79.00

EMAC

55126 SILHOUETTE 78.00

KEYTRONICS

51063 MACPRO PLUS KEYBOARD 125.00

LOGITECH

60435 FOTOMAN MAC W/ DIGITAL DARKROOM LOGITECH 599.00
60434 KIDZ MOUSE FOR MAC 49.00
60433 MOUSEMAN FOR MAC RIGHT-HANDED 79.00
55823 TRACKMAN 85.00

MICROSPEED

50588 MACTRAC PLUS 69.00
50589 MACTRAC - ADB 79.00

MOUSE SYS

55439 A3 MOUSE 89.00
50521 LITTLE MOUSE A PLUS 70.00
50522 LITTLE MOUSE ADB VERSION 74.00
56014 TRACKBALL - ADB 69.00

Languages

MICROSOFT

60726 QUICK BASIC COMPILER V1.0 69.00

SYMANTEC

55361 THINK PASCAL V4.0 159.00
55398 THINK C V5.0 185.00

Modems

COMPUTER PERIPHERALS

60131 HOOK-UP 2400SE 2400 BAUD MODEM 79.00
60130 VIVA 24M MODEM 2400 W/ MNP5 139.00
60079 VIVA 9642E V.32/V.42BIS 379.00

GLOBAL

60465 POWERPORT BRONZE 209.00
60466 POWERPORT SILVER 449.00
60467 POWERPORT GOLD 579.00
60659 TELEPORT BRONZE 199.00
60660 TELEPORT SILVER 369.00
60661 TELEPORT GOLD 449.00

PRACTICAL PERIPHERALS

60570 PM14400 / FX96SA EXTERNAL 425.00

PSI

60769 COMSTATION NETWORK 299.00
60326 COMSTATION 5 509.00
60325 POWR MODEM II POWRBK 269.00
60767 POWR MODEM III POWRBK 379.00
60768 POWR MODEM IV POWRBK 479.00

ZOOM

55175 FX9624 FAX MODEM 119.00
60395 VFXV32 BIS FAX/MODEM V.32BIS 309.00

Monitors

GENERATION

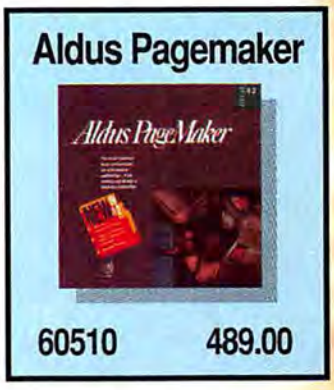
55674 FULL PAGE DISPLAY MONO/GRAYSCALE 479.00

NEC

55587 MULTISYNC 3FGX 15" 629.00
55588 MULTISYNC 4FG 15" 759.00

SIGMA

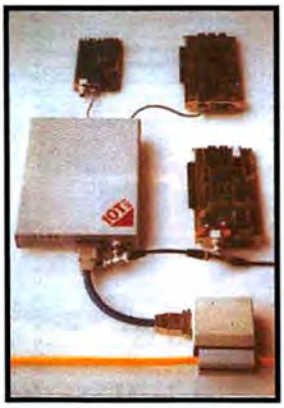
60591 POWERPORTRAIT GRANITE 849.00
60592 POWERPORTRAIT PLATINUM 765.00



Call 1-800-222-2808

MAC DEPOT™

Call us for quality products only



ASANTÉ

All the right connections!

5 YEAR WARRANTY

MACCON+ 64K (10T)	159.00
MACCON3 64K (10T)	209.00
FRIENDLYNET ADAPTER	79.00
HUB/8 (8PORTS) (10T)	245.00
HUB/12 (12PORTS) (10T)	489.00
ASANTE PRINT 1001	349.00
EN/SC (10T)	245.00
EN/SC POWERBOOK (10T)	275.00

SONY

4019	CPD-1304S MULTISYNC	639.00
5826	CPD-1604S MULTISCAN 17"	1069.00

Network

ASANTE

60030	FRIENDLYNET THIN NUBUS	209.00
60031	FRIENDLYNET 10BASET NUBUS	209.00
60044	FRIENDLYNET THIN PDS 30 W/ 16K	249.00
60046	FRIENDLYNET 10BASET PDS 30 W/ 16K	249.00
60045	FRIENDLYNET THIN IISI W/ 16K & FPU	339.00
60047	FRIENDLYNET 10BASET IISI W/ 16K & FPU	339.00
60025	MACCON 3 NUBUS W/ 64K	209.00
60026	MACCON + IIE NUBUS W/ 16K	159.00
60028	MACCON + IIET NUBUS W/ 16K	159.00
60027	MACCON + IIE NUBUS W/ 64K	209.00
60029	MACCON + IIET64 NUBUS W/ 64K	209.00
60032	MACCON3 IISI PDS 30 W/ 64K	245.00
60033	MACCON 3 IISI PDS 30 W/ 64K & FPU	339.00
60034	MACCON + 301E PDS 30 W/ 16K	199.00
60035	MACCON + 301E64 PDS 30 W/ 64K	249.00
60036	MACCON + 301E PDS 30 W/ 16K & FPU	289.00
60037	MACCON + 301E64 PDS 30 W/ 64K & FPU	339.00
60038	MACCON + 301E PDS 30 W/ 16K	249.00
60039	MACCON + 301ET PDS 30 W/ 16K	199.00
60040	MACCON + E01E64 PDS 30 W/ 64K	249.00
60041	MACCON + 301ET PDS 30 W/ 16K & FPU	289.00
60042	MACCON + 301E64 PDS 30 W/ 64K & FPU	339.00

Insignia Solutions



Run MS-Dos programs on your Mac

55403	Universal SoftPC	199.00
55436	EntryLevel SoftPC	129.00

60043	MACCON + 301ETR PDS 30 W/ 16K	249.00
60707	10BASET HUB/8 8 PORTS	269.00

DAYNA

55316	ETHERPRINT	339.00
55317	ETHERPRINT PLUS	609.00
55678	DAYNAPORT E/Z	275.00
55679	DAYNAPORT E/Z-T W/ 10BASE-T	275.00
60437	DAYNAPORT E/LC-T LC/LCII	149.00
60096	DAYNAPORT E/30 SE/30	149.00
60097	DAYNAPORT E/30-T SE/30	149.00
60098	DAYNAPORT E/SI IISI	149.00
60099	DAYNAPORT E/SI IISI W/ FPU	249.00
60100	DAYNAPORT E/SI-T IISI	149.00
60101	DAYNAPORT E/SI-T IISI W/ FPU	249.00
60264	DAYNAPORT SCSI LINK	299.00
60265	DAYNAPORT SCSI LINK T	279.00
60453	DAYNASTAR MINIHUB 10BASE-T / 8 PORTS	245.00
60454	DAYNASTAR HUB 12 10BASE-T / 12 PORTS	689.00

SUPERMAC™



SuperMatch Dual Mode Trinitron

Your choice $2399



SuperMatch 21" Color Display

55318	SPECTRUM 24 PDQ PLUS	1499.00	60447	SUPERMATCH 20•T	2510.00
55262	SPECTRUM/8•24 PDQ	589.00	55647	VIDEOSPIGOT LC	269.00
55163	SPECTRUM/24 SERIES III	839.00	55648	VIDEOSPIGOT SI	339.00
55442	THUNDER/24	2339.00	55649	VIDEOSPIGOT NUBUS	389.00
60607	THUNDERSTORM	835.00	60177	VIDEOSPIGOT PRO NUBUS	1089.00

Call 1-800-222-2808

Your One-Stop Mac Super Center

BERNOULLI BOX
THE NEW MAC TRANSPORTABLE 90

60819 Bernoulli 90MB PRO Transportable 499.00

- 90 MB per disk.
- Complete system; drive, cables & disk.
- System 7 Compatible.
- Get the Same reliablilty you'd expect from Iomega for 40% less.



IOMEGA
Makers of Bernoulli



60455 DAYNAPORT E/LC LC/LCII 149.00
60456 DAYNAPORT E/LC LC/LCII W/ FPU 289.00
60457 DAYNAPORT E/LC-T LC/LCII W/ FPU 289.00
60458 DAYNAPORT E/II NUBUS 179.00
60459 DAYNAPORT E/II-T NUBUS 149.00
60460 ETHERPRINT-T 339.00
60461 ETHERPRINT-T PLUS 595.00
60451 NETMOUNTER SINGLE USER 59.00

Printers

COSTAR
55314 LABELWRITER II 189.00
55313 LABELWRITER II PLUS 299.00

GENERAL PARAMETRICS
60765 SPECTRA STAR MODEL 450 11249.00

Applied Engineering



1.44MB Disk Drive for MacPlus/ SE/ Mac II

55651 Plus Drive 289.00

HP
5776 LASERJET IIISI / 5MB APPLETALK & TONER 4599.00
60259 LASERJET IIISI / 5MB ETHERNET & TONER 4599.00
60116 PAINTJET XL300 2359.00
60117 PAINTJET XL300 POSTSCRIPT 3395.00

NEC
60008 SILENTWRITER MODEL 95 1539.00

QMS
2700 PS-410 LASERPRINTER 1549.00

SEIKO
60813 SMART LABEL PRINTER PLUS 149.00
60815 SMART LABEL PRINTER PLUS LABELS 9.00
60814 SMART LABEL PRINTER PLUS CLEAR LABELS 15.00

Scanners

CAERE
55414 TYPIST PLUS GRAPHICS 463.00

HP
3664 SCANJET IIC SCANNER W/ MAC INTERFACE 1349.00

MICROTEK
51206 SCANMAKER 1850S SLIDE SCANNER 1529.00

MOUSE SYS
55425 PAGEBRUSH COLOR SCANNER 559.00

Utilities

AFTER HOURS
60260 DATE BOOK V1.0 75.00

ALSOFT
60698 DISK EXPRESS II V2.10 48.00
60699 POWER UTILITIES 67.00

ALTSYS
55739 EPS EXCHANGE 89.00

AMAZE
55364 FARSIDE COMPUTER CALENDAR 45.00

APPLE
5788 APPLESHARE SERVER V3.0 969.00
3552 APPLETALK REMOTE ACCESS 169.00
60550 AT EASE 49.00
60335 MAC PC EXCHANGE 65.00
60336 QUICKTIME STARTER KIT 155.00
60821 SYSTEM SOFTWARE V7.1 99.00

ASANTE
60656 PERSON TO PERSON 2 PACK 99.00
60657 PERSON TO PERSON 10 PACK 269.00
60658 PERSON TO PERSON ZONE PACK 469.00

BERKELEY
50208 AFTER DARK V2.0 28.00
50898 MORE AFTER DARK V1.0 23.00

CAERE
55349 OMNIPAGE V3.0 449.00
60536 OMNIPAGE PRO V2.1 629.00
60535 OMNIPAGE DIRECT 239.00

CALERA
55741 WORD SCAN OCR 199.00
55742 WORD SCAN PLUS OCR 369.00

CE S/W
50363 DISK TOP V4.0 63.00
60009 QUICKEYS V2.1 95.00

CUSTOM APPLICATION
50990 FREEDOM OF THE PRESS LIGHT 69.00
60611 FREEDOM OF THE PRESS LIGHT V3.03 83.00
50441 FREEDOM OF THE PRESS V3.01 239.00

DANTZ
50804 RETROSPECT V1.3 145.00
55807 RETROSPECT REMOTE V1.3 10 PACK 149.00
55209 RETROSPECT REMOTE V1.3 259.00

DATAVIZ
60472 MACLINK + TRANSLATOR V6.0 105.00
60473 MACLINK PLUS PC V6.0 125.00

DAYNA
60452 DOS MOUNTER V3.0 49.00

EXPERVISION
60575 TYPE READER V1.0 479.00

5TH GENERATION
56029 SUITCASE V2.1 53.95
60771 FASTBACK PLUS V3.0 129.00

FWB
55481 HARD DISK TOOL KIT V1.0 124.00

GDT
60262 POWERPRINT 105.00

INSIGHT
60183 MAC PRINT V1.3 94.00

INSIGNIA
60485 ACCESS PC 60.00
55407 SOFT AT V2.5 295.00
55436 SOFTPC ENTRY LEVEL 125.00
55850 SOFTNODE V1.0 109.00
55403 UNIVERSAL SOFTPC V2.5 189.00

LIGHTSOURCE
55864 QFOTO LIGHTSOURCE 279.00

MICROSPOT
55362 MACPALETTE II 45.00

NOW S/W
60668 NOW UP-TO-DATE 65.00
60705 NOW UP-TO-DATE 5 USER 269.00
50816 NOW UTILITIES V3.0 79.00

PASTEL
55585 DAY MAKER 65.00

SALIENT
50607 DISKDOUBLER V3.7 45.00

SYMANTEC
60309 NORTON UTILITIES V2.0 95.00
55322 S.A.M. V3.0 65.00

TEKNOSYS
60634 HELP! V1.03 89.00

plusware

Numeric Keypad for PowerBook



60730 Keypad 79.00
60731 Keypad with Quickeys Light ... 89. 00

THOUGHT I COULD
60633 WALLPAPER 37.00

WORDSTAR
60185 CORRECT GRAMMAR V3.0 65.00
60665 CORRECT LETTERS 32.00
60667 CORRECT QUOTES 32.00
60666 CORRECT WRITING 32.00

XEROX
60053 ACCUTEXT V3.0 599.00

Video cards

COMPUTER CARE
60679 BOOKVIEW IMPERIAL 140/145/170 965.00

NEC
60006 MAC FG8X VIDEO CARD 709.00
60007 MAC FG24X VIDEO CARD 1499.00

RADIUS
60508 PRECISION COLOR 24XP 529.00
60507 PRECISION COLOR 24XK 799.00
60506 PRECISION COLOR 8XJ 499.00
55692 PRECISION COLOR 24X 1679.00
60509 VIDEO VISION 1989.00

Our English, French, Spanish, and German speaking sales representatives are ready to take your orders.

OUR POLICIES

30-day MBG applies to designated manufacturers only. Call customer service at (310) 214-0000 for a Return Authorization. All returns must have an authorization number (RA #). Returned products must be in original condition and packaging and must be sent back within 30 days of our invoice date. No refunds for freight charges.

Prices and availability of product are subject to change without notice. You card is not charged until we ship. We ship Federal Express. All U.S. orders are insured at no extra charge. Saturday delivery available at nominal charge. Some areas may require an additional day for delivery. Personal checks require up to 10 working days to clear. Include: name, address and telephone numbers (no P.O. Boxes please). If ordering by credit card, include expiration date and billing address. California residents (only) add 8.25% for sales tax. Government and educational P.O.'s approved immediately.

FEDERAL EXPRESS

ESTABLISHED 1985

MAC DEPOT™

1-800-222-2808

4453 REDONDO BEACH BLVD.
LAWNDALE, CA 90260
FAX: 310-214-0932
Canada Toll-Free: 1-800-548-2512

Call 1-800-222-2808

MAC DEPOT™

Great monitors, unbelievable prices!

CM1445

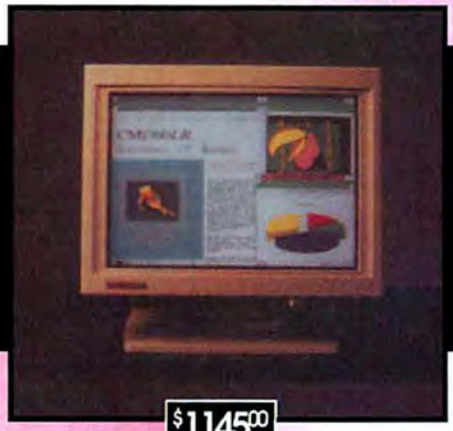
SII
Seiko Instruments



$479.00

- 43% brighter than the Apple RGB 13" monitor.
- 14" flicker free Triniton tube.
- 640 x 480 resolution.
- .25mm dot pitch.
- Built-in Tilt/Swivel base.
- 75Hz refresh rate.
- Up to 16.8 million colors.

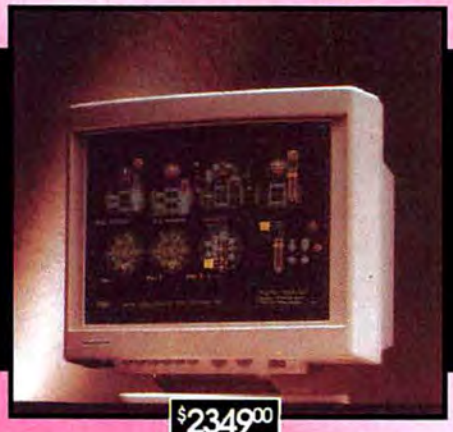
CM1760LR



$1145.00

- Virtually flat, anti-glare screen with high-contrast tube for exceptional color.
- 17" high-contrast Triniton tube.
- Up to 1280 x 1024 resolution.
- .25mm dot pitch.
- 50-90Hz refresh rate.
- Up to 16.8 million colors.
- Meets MPR II Compliance Standards.

CM2070LR



$2349.00

- High-contrast black tube presents exceptional color, clarity and contrast.
- 20" cylindrical Triniton tube.
- Up to 1280 x 1024 resolution.
- .30mm dot pitch.
- 50-90Hz refresh rate.
- Up to 16.8 million colors.
- Meets SWEDAC MPR II Standards.

CIRCLE 40 ON READER SERVICE CARD.

Call 1-800-222-2808

MiniFinders

MiniFinders is a comprehensive directory of current Macintosh hardware and software products that have been reviewed and rated in *MacUser*. Our rating system awards one (worst) to five (best) mice, based on each product's overall value within its category. As the state of the art changes, so does each product's rating. More-detailed product information can be found in the issue cited in parentheses near the end of each entry. *MacUser* Editor's Choice Award winners are indicated with a ★, along with the year in which they received that recognition. Hardware products are generally listed alphabetically by manufacturer; software products are generally listed alphabetically by product.

A HyperCard stack of the entire MiniFinders database is available on ZiffNet/Mac and offers regular updates and keyword-searching capabilities as well as access to the complete text of *MacUser* back issues. You can find this MiniFinders stack in Library 3 of the MacUser Forum (filename: MUMINI.SEA). Check the table of contents for information on how to sign up.

Because product prices, hardware specifications, software features, and vendor addresses change quickly, we recommend contacting manufacturers directly for the latest product information.

Vendors can update their listing by sending written notification to MiniFinders, c/o *MacUser*, 950 Tower Lane, 18th Floor, Foster City, CA 94404.

MiniFinder Index

Data Acquisition & Analysis 103
Database Management 103
Display Systems & Video 106
Education 118
Entertainment 122
Financial Management 129
General Hardware & Accessories 132
Graphics & Design 133
- CAD 184
- Clip Art 186
- Drawing 187
- Fonts & Typography 190
- Modeling & Animation 192
- Page Layout 195
- Painting & Image Editing 196
- Presentations 199

Input Devices 200
Music & Sound 203
Networking & Connectivity 206
Organizational Tools 219
- Personal-Info Managers 221
- Project Planners & Organizers 224

Output Devices 226
Performance Enhancers 235
Programming & Systems 237
Resources 241
Scanners 243
Spreadsheets & Numerical Analysis 246
Storage Systems 250
- Hard-Disk Drives 250
- Removables 258

Telecommunications 276
Utilities 284
- File & Disk Management 290
- Printing 304
- Security 305

Word Processing 309
- OCR 311
- Spelling & Grammar Checkers 312

Data Acquisition & Analysis

IPLab Spectrum ⭐⭐⭐

IPLab Spectrum is a scientific image-processing package that extracts and analyzes data from photographic-quality color images. Supports video capture and includes scripting language. Interface is neither predictable nor intuitive. Allows mathematically expressed image modification down to the pixel level. Provides a Movie command to cycle through a series of images. No morphology and quantitative analysis. Version 1.0 reviewed. Version 2.2 shipping. Requires Macintosh II series or higher, 4 MB of RAM, and a color display system. $999. Signal Analytics Corp., 374 Maple Ave. E., Ste. 204, Vienna, VA 22180. 703-281-3277. (July '91)

LabVIEW ⭐⭐⭐⭐⭐

LabVIEW is a graphical programming environment for creating applications that manage data-acquisition, robotics, and machine-control operations. Data analysis includes complex math and signal processing. LabVIEW is one of the best-designed and most efficient systems on the Mac or PC for creating "virtual" instruments: Engineers accustomed to sketching block diagrams (before programming a data-acquisition task) can feel comfortable with this program, where the user's drawing becomes the actual functioning software interface. Version 2.1 reviewed. Version 2.2 shipping. Requires 4 MB of RAM and a hard drive. $1,995; run-time version, $495. National Instruments Corp., 6504 Bridge Point Pkwy., Austin, TX 78730. 800-433-3488 or 512-794-0100. (May '91) ★ '90 Eddy

MacADIOS II ⭐⭐⭐⭐

MacADIOS II is a hardware and software interface for laboratory instruments. Standard configuration samples up to 142 kHz. Sketchy documentation. Requires Macintosh II series or higher. NuBus data-acquisition card, $1,490 direct; SuperScope software, $990. GW Instruments, 35 Medford St., Somerville, MA 02143. 617-625-4096. (July '88)

Ultimage/X ⭐⭐⭐⭐

Ultimage/X is a scientific image-processing package that extracts and analyzes data from photographic-quality color images. Supports video capture. Includes scripting language and provides morphology and sophisticated quantitative analysis. Allows mathematically expressed image modification down to pixel level. A 3-D View command plots color perspective graphs with mountains and valleys corresponding to pixel light intensity. Includes AutoMac III macro program and Developer's Toolkit for customizing the Ultimage User menu. Version 1.2 reviewed. Version 2.0 shipping. Requires Macintosh II series or higher with math coprocessor and 4 MB of RAM. $2,300 direct. GTFS, Inc., 2455 Bennett Valley Rd., Ste. 100C, Santa Rosa, CA 95404. 707-579-1733. (July '91)

WorkBenchMac ⭐⭐⭐⭐

WorkBenchMac (formerly Analog Connection Workbench) is an icon-based application generator for general-purpose data acquisition, control, and analysis. Users create flow diagrams that make live color plots. Powerful and easy to use. Version 3.0 reviewed. Version 3.1 shipping. Requires Macintosh SE or later. $995. Strawberry Tree, Inc., 160 S. Wolfe Rd., Sunnyvale, CA 94086. 408-736-8800. (July '89)

Database Management

4D Calc ⭐⭐⭐

4D Calc is a spreadsheet module that works with the 4th Dimension database application. Although it can't replace a full-featured spreadsheet program, 4D Calc's "hot" links to 4D databases immediately update shared information. The ability to exchange data as SYLK files between Excel and 4D is adequate, but formulas may be replaced by

Mice Ratings ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

values (ACIUS' documentation and sample databases are helpful here). 4D Calc offers considerable design potential for 4D programmers contemplating more-sophisticated uses of this module. Version 1.0 reviewed. Requires 4th Dimension 2.1.1 or later. $295. ACIUS, Inc., 10351 Bubb Rd., Cupertino, CA 95014. 408-252-4444. (June '91)

4D Compiler ⭑⭑⭑⭑

This developer tool lets 4th Dimension speed up many user-defined procedures, rather than interpreting code into machine language. The program is copy-protected, asking for an original disk at launch and occasionally thereafter. Despite this nuisance, 4D Compiler is indispensable for 4D developers. Version 1.0 reviewed. $1,000; for registered 4D developers, $700. ACIUS, Inc., 10351 Bubb Rd., Cupertino, CA 95014. 408-252-4444. (Jan '91)

4D Draw ⭑⭑⭑⭑

4D Draw is an external module that adds object-oriented drawing capability to 4th Dimension databases. Provides many features of a stand-alone graphics program plus a wide range of custom procedures, buttons, and commands. A Smooth command transforms jagged polygons to more-subtle shapes and handles scaling well. A coordinate panel displays object dimensions while objects are being manipulated, or dimensions can be altered directly by retyping displayed values. Can import bit-mapped images via the Clipboard. Allows graphic images to be displayed along with database fields, and contained data can be made interactive with surrounding graphics and other databases. Version 1.0 reviewed. Requires 4th Dimension. $295. ACIUS, Inc., 10351 Bubb Rd., Cupertino, CA 95014. 408-252-4444. (Aug '92)

4D Write ⭑⭑⭑

4D Write is a word-processing module that works with 4th Dimension. Although you couldn't replace a full-blown word-processing program with 4D Write, it has basic features such as formatting, rulers, and the capability to handle simple graphics. No spelling checker or style sheets. Sometimes has difficulty opening large text files, and translation of imported RTF (rich text format) documents is not good, although you can specify RTF when saving documents. Version 1.0 reviewed. Requires 4th Dimension 2.1.1 or later. $295. ACIUS, Inc., 10351 Bubb Rd., Cupertino, CA 95014. 408-252-4444. (June '91)

4D XREF ⭑⭑⭑⭑

4D XREF is a specialized analytical tool that every 4D developer will cherish. It's simply a module that lists and cross-references all the different variables, procedures, commands, externals, structure elements, and layouts used in a 4D database. The entire XREF file can be saved as a text file for use in other applications. Listings provided (including Layouts and Structure) allow for clear, graphically intuitive analyses of procedures, layout dimensions, and structure maps. Version 1.0 reviewed. Requires 4th Dimension 2.1.1 or later. $200. ACIUS, Inc., 10351 Bubb Rd., Cupertino, CA 95014. 408-252-4444. (June '91)

4th Dimension ⭑⭑⭑⭑½

4th Dimension is a fast, versatile relational database that can create powerful, elegant stand-alone applications. Has a Pascal-like procedural language, but also allows simplified database design using standard layouts. Design environment provides easy linking of different information types. Good documentation. ACIUS and many third-party vendors offer a wide variety of specialized 4D add-ons. Version 2.23 reviewed. Version 3.0 shipping. Requires Mac Plus or later, System 6.03 or later, 2 MB of RAM, and a hard drive. $895. ACIUS, Inc., 10351 Bubb Rd., Cupertino, CA 95014. 408-252-4444. ★ '87, '89 Eddy

4thRight! Professional ⭑

4thRight! Professional is a database-development shell for ACIUS' 4th Dimension application. Requires laborious setup and has confusing interface. Structure file consumes 1.7 MB of storage even before user customization. Sluggish for uncompiled databases, due to poor programming. Inaccurate documentation. Version 2.01 reviewed. Requires 4th Dimension. $695. Digital Concepts, Inc., P.O. Box 69159, Portland, OR 97201. 503-244-4460. (Feb '92)

Atlas Pro ⭑⭑⭑⭑

Atlas Pro is a sophisticated digital cartographer that displays demographic and marketing information geographically. Uses basic spreadsheet-like tools to manipulate and edit data. Can use System 7.0's publish-and-subscribe feature to update maps linked to data files created by other applications. Can also link multiple PICT files and QuickTime movies for point-and-click access from map displays. A large library of maps and supporting data is available (some at additional cost) but there is no internal database manager. Provides remote-mainframe SQL links. The program is fast at presentation mapping; provides international maps; and supports U.S. boundary maps by state, county, ADI, DMA, and ZIP code. Version 1.05 reviewed. Version 1.5 shipping. Requires Macintosh Plus or later and a hard drive; 68030 CPU or higher and color display system recommended. $795; optional street maps, $200 to $500 per county; entire U.S.A. on CD-ROM, $25,000. Strategic Mapping, Inc., 3135 Kifer Rd., Santa Clara, CA 95051. 408-970-9600. (May '92)

Azimuth ⭑⭑⭑⭑

Azimuth is a cartographic powerhouse that teams sophisticated projection mapping with 2-D CAD tools. Lets you build excellent perspective maps of the earth based on a view from space. No built-in data-analysis features, but allows detailed map annotation. Can export files in black-and-white EPS format for use with DTP and illustration programs. Includes outlines of all countries and states but not of counties or city streets. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later and a hard drive. $395. Graphsoft, Inc., 8370 Court Ave., Ste. 202, Ellicott City, MD 21043. 410-461-9488. (Apr '92)

DAtabase ⭑⭑

DAtabase is an easy-to-use flat-file manager in a DA. Handles pictures, text, and numbers. Imports QuickDEX and other files. Includes separate application, DAtabase Builder, for designing databases for use with the DA. Xtras feature lets you incorporate sound, phone dialing, and graphics. Allows only a single view of data. Has 50-field limit and minimal calculation options. Doesn't generate reports. Files are large. Version 1.51 reviewed. Requires Macintosh Plus or later. $129.95. Baseline Publishing, Inc., 1770 Moriah Woods Blvd., Ste. 14, Memphis, TN 38117. 800-926-9677 or 901-682-9676. (Feb '92)

Double Helix ⭑⭑⭑⭑

Double Helix is a sophisticated relational-database manager that can work in a multiuser environment. Its icon-based development system makes database creation easy. Has no reusable code, and cannot link externals. Incorporates file-server technology independent of AppleShare. Major upgrade planned for early 1993. Version 3.5 reviewed. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $439. Helix Technologies, 4100 Commercial Ave., Northbrook, IL 60062. 800-364-4354 or 708-205-1669.

Easy4D ⭑⭑⭑⭑½

Easy4D is a database-development shell for ACIUS' 4th Dimension application. Emphasizes minimal coding and simplicity for the designer while providing numerous features that benefit users of completed databases. Clean, consistent, and elegant. Creating new file layouts is automatic and fast. Print Merge feature works with 4DWrite. Print Merge Glossary feature resembles Microsoft Word's. Good documentation. Version 2.1 Release 4 reviewed. Requires 4th Dimension. $399 direct. Natural Intelligence,

Inc., 2067 Massachusetts Ave., Cambridge, MA 02140. 800-999-4649 or 617-876-4876. (Feb '92)

File ⭐⭐⭐

Microsoft File is a basic flat-file database manager. Has 100 form templates that work with standard preprinted business forms. Version 1.1 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later. $195. Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Nov '89)

File Force ⭐⭐⭐½

File Force is a relational-database manager. Script editor provides a graphic way to view database file structures, establish file relations, and access layouts. Excellent documentation. Version 1.0 reviewed. Version 1.01 shipping. $395. ACIUS, Inc., 10351 Bubb Rd., Cupertino, CA 95014. 408-252-4444. (Sept '90)

FileMaker Pro ⭐⭐⭐⭐½

The flat-file-database manager FileMaker Pro is ideal for novices but has the power to run large, sophisticated databases. Offers flexible layouts, good searching/sorting functions, many data-entry and calculation options, and good reporting capabilities. Has many of the features of a relational-database manager. Several users on an AppleTalk network can access and modify one FileMaker database simultaneously without requiring a dedicated server. Search engine is adequate but lacks precision. Has adaptable password-security system. FileMaker tends to favor reliability over processing speed, so Macs with 68000 CPUs or slow, overloaded hard drives will feel sluggish. Version 1.0v2 reviewed. Version 2.0 shipping. Requires Mac Plus or higher with System 6.03 or later, 2 MB of RAM, and a hard drive. $299. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (Feb '92) ★ '86 Eddy

Filevision IV ⭐⭐⭐

Filevision IV is a picture-oriented flat-file-database manager. Good choice for graphics/text-integration projects but not for straight-text uses. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later and System 6.03 or later. $295. TSP Software, 4790 Irvine Blvd., Ste. 105-294, Irvine, CA 92720. 714-731-1368. (Nov '89)

FoxBASE+/Mac ⭐⭐⭐⭐½

FoxBASE+/Mac is a powerful relational-database manager that can read unmodified dBASE/DOS or FoxBASE/DOS files. Amazingly fast, regardless of database size. Good emulation of dBASE on the Mac. Requires more detailed coding than other similar programs. Steep learning curve, but worth it for professional applications. Supports multiwindow databases. Parent company Microsoft is planning a major upgrade for late 1992 release. Version 2.01 reviewed. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $495. Fox Software, Inc. (Microsoft), 134 W. South Boundary, Perrysburg, OH 43551. 419-874-0162. ★ '88 Eddy

GeoQuery ⭐⭐⭐⭐

GeoQuery is a digital cartographer that displays demographic and marketing information geographically. Streamlined interface and low memory requirements adapt well to PowerBooks. Lacks high-end data-analysis functions. Provides no internal database manager or international maps but supports U.S. boundary maps by state, county, ADI, DMA, and ZIP code. Excellent feature set for the price. Interface for Apple's DAL is helpful for networked corporate users. System 7 support enables powerful links to source data generated by spreadsheet and database programs or stored in remote-mainframe SQL databases. Many optional county and highway maps are available. Version 3.02 reviewed. Requires Mac Plus or later and System 6.07 or later. $395 direct. GeoQuery Corp., 387 Shuman Blvd., Ste. 385E, Naperville, IL 60563. 800-541-0181 or 708-357-0535. (Oct '92)

HyperHIT ⭐⭐⭐½

HyperHIT is a set of HyperCard XFCNs and XCMDs that lets you build database applications in HyperCard. Has many powerful functions and tools. HyperTalk experience is required. Results can be slow. Version 1.0 reviewed. Version 3.12 shipping. Requires Macintosh Plus or later and HyperCard. $195.95 plus license fees for commercial use. SoftStream International, Inc., 10 Twin Ponds Dr., S. Dartmouth, MA 02748. 800-262-6610 or 508-991-4011. (Jan '90)

MapInfo for Macintosh ⭐⭐⭐

MapInfo is a digital cartographer that displays demographic and marketing information geographically. Large library of maps and supporting data available (some at additional cost). Has internal SQL-database program but doesn't support Apple's DAL. Excellent import capabilities. Street-level mapping can cover entire U.S., and the program includes international maps and supports U.S. boundary maps by state, county, ADI, DMA, and ZIP code. Version 1.01 reviewed. Version 2.0 shipping. Requires Macintosh Plus or higher, 2 MB of RAM, and a hard drive. $995; additional maps, boundary files, and city point files, starting at $95 each; quantity discounts available; site licenses available. MapInfo Corp., 200 Broadway, Troy, NY 12180. 800-327-8627 or 518-274-6000. (Mar '91)

Omnis Seven ⭐⭐⭐⭐½

Omnis Seven is a fast, powerful, easy-to-use relational-database manager. Offers stellar cross-platform compatibility between PC and Mac environments. Ideal for experienced database developers, yet also provides Short Menus mode and consistent, easy-on-the-brain interface for beginners. Supports multiwindow databases. Version 1.0 reviewed. Version 1.03 shipping. Requires Mac Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $1,250. Blyth Software, Inc., 1065 E. Hillsdale Blvd., Ste. 300, Foster City, CA 94404. 800-346-6647 or 415-571-0222.

Panorama II ⭐⭐⭐⭐

Panorama is a powerful and classy flat-file-database manager. Stores databases in RAM to maximize performance, but file size is therefore limited by memory-partition size. Vulnerable to electrical power interruptions. Spreadsheetlike data entry. Supports text, numbers, graphics, and dates as data types, with a wide range of input formatting. Offers powerful charting function and macros. Clairvoyance option suggests data input based on contents of similar records. Supports basic lookup function between separate databases. Confusing calculation setup. Version 2.01 reviewed. Version 2.06 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $395. ProVUE Development, Inc., 15180 Transistor Ln., Huntington Beach, CA 92649. 714-892-8199. (Feb '92) ★ '88 Eddy

Pro-Cite ⭐⭐⭐½

Pro-Cite is a complete database-management system for bibliographies. Almost unlimited flexibility in bibliography formatting. Full-featured search and sort capabilities. Overly complicated and nonintuitive use of menu bar and dialog boxes. Version 1.3 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and System 6.03 or later; hard drive recommended. $395. Personal Bibliographic Software, Inc., P.O. Box 4250, Ann Arbor, MI 48106. 313-996-1580. (Feb '89)

RecordHolder Plus ⭐

RecordHolderPlus is a venerable flat-file-database manager with functionality not significantly improved since first release. Slow. Has compact files. Counterintuitive, clumsy interface. Allows only single view of data and can't select a subset of records. Version 3.1 r6 reviewed. Requires Macintosh Plus or later with System 6.03 or later and a hard drive. $149.95. Software Discoveries, Inc., 137 Krawski Dr., South Windsor, CT 06074. 203-644-9225. (Feb '92) ★ '87 Eddy

Reports ⭐⭐⭐⭐

Reports fills the gap left by HyperCard's limited report-

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

generation ability by delivering powerful database-reporting capabilities to HyperCard users. You can create report layouts, choose any HyperCard-based record selection and sorting criteria, and print the results. Reports is actually several applications in a single package; a layout editor, a card selector (within stacks), and an overall viewing and editing system (thanks to the MasterView application included). Version 2.0 reviewed. Version 2.5 shipping. Requires Mac Plus or later with 4 MB of RAM, System 6.05 or later, a hard drive, and HyperCard 2.1 (included) or later. $129.95 direct. Nine To Five Software, P.O. Box 18899, Boulder, CO 80308. 800-292-5925 or 303-443-4104. (June '91)

Retriever II ↕↕

Retriever is a spreadsheet-oriented flat-file-database manager that has good reporting capabilities. Uses icons instead of menus for many functions. Limited layout options and has interface problems. Has a fast sorting function, a decent searching capability, and clever automated phone-dialing feature. Version 1.0 reviewed. Requires Mac Plus or later and System 6.03 or later. $49.95 direct. Exodus Software, 800 Compton Rd., Ste. 9240, Cincinnati, OH 45231. 513-522-0011. (Aug '92)

Tactician 2.0 ↕↕↕↕½

Tactician 2.0 is a digital cartographer that displays demographic and marketing information geographically. Has excellent performance and interface that incorporates Apple's DAL. A large library of maps and supporting data is available, but there is no internal database manager. The program has no international maps but supports street-level mapping and U.S. boundary maps by state, county, ADI, DMA, and ZIP code. Version 2.0 reviewed. Version 2.2 shipping. Requires Macintosh II series, a color monitor, 4 MB of RAM, and a hard drive. $2,495. Tactics International, 16 Haverhill St., Andover, MA 01810. 800-927-7666 or 508-475-4475. (Mar '91) ★ '90 Eddy

Display Systems & Video

Adobe Premiere ↕↕↕↕½

Adobe Premiere is a full-fledged QuickTime movie-editing studio in software. Has slick, streamlined interface that's accessible and intuitive for novices. Although not yet as feature-rich as the Amiga-based NewTek Video Toaster, Premiere offers powerful digital-video editing and a wide variety of special effects and transitions. Uses premade QuickTime movies created by video-digitizer boards. Can also incorporate PICS, PICT, and Photoshop images, along with digitized sound in snd, SoundEdit, and AIFF formats. On Macs with suitable video cards, records QuickTime movies with sound directly to VCRs. Uses SMPTE-format time-based editing. Latest version generates edit-decision lists for professional off-line editing. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh II series or higher with 4MB of RAM, a high-capacity hard drive, System 6.07 or later, and 32-bit QuickDraw. $495. Adobe Systems, 1585 Charleston Rd., P.O. Box 7900, Mountain View, CA 94039. 800-833-6687 or 415-961-4400. (June '92)

Amdek AM/738+ ↕↕↕½

This autosynchronous color monitor has a shadow-mask tube and is moderately priced. Suffers from pincushioning and poor convergence. Active screen size is 11.8 inches. Scan rate ranges from 31.5 to 38 kHz horizontally and from 50 to 90 kHz vertically. Has silica antiglare treatment. External controls include image brightness/contrast, horizontal position, and horizontal and vertical size. Video-signal compatibility includes Macintosh II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz. Good documentation. $599 (or $399 direct). Amdek, 3471 N. First St., San Jose, CA 95134. 800-722-6335 or 408-922-5700. (Aug '92)

Apple Display 8•24 ↕↕↕↕½

This 24-bit color display system combines the 13-inch AppleColor Hi-Res RGB Display with the Macintosh Display Card 8•24. The 13-inch-diagonal screen size may not be large enough for some professional applications, but the AppleColor's sharpness, focus, and color quality are unbeatable. Requires Macintosh II series or higher and System 6.05 or later. $1,498. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (May '91)

Apple Display 8•24 GC ↕↕↕↕½

This 24-bit color display system combines the 13-inch AppleColor Hi-Res RGB Display with the extremely fast Macintosh Display Card 8•24 GC. The screen size may not be large enough for some professional applications, but no one will ever have reason to complain about the AppleColor's sharpness, focus, and color quality. Requires Macintosh II series or higher and System 7.0 or later. $2,298. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (May '91)

Apple Macintosh 12" Monochrome Display ↕↕↕

This 12-inch monochrome monitor has good geometry. Due to the antiglare etching, users can experience focus problems. The screen is dim. Resolution is 74 dpi. Requires Macintosh II series with video card (optional with Mac IIci and IIsi). Monitor only, $299. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Apr '90)

Apple Macintosh Portrait Display ↕↕↕↕½

This high-quality, full-page monitor is one of the best available. Its screen resolution is slightly below true WYSIWYG, so things appear a bit small. Can produce up to 256 levels of gray, using an 8•24 card. The monitor cable doesn't fit all third-party video cards, so check before you buy. Requires Macintosh II series with video card (optional with Mac IIci and IIsi). $1,099. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Feb '91) ★ '89 Eddy

AppleColor High-Resolution RGB Monitor ↕↕↕↕½

The AppleColor High-Resolution RGB Monitor is standard among 13-inch monitors. Sharp. Has adequate brightness, but with no built-in glare protection. Can support 24-bit color when used with the Macintosh 8•24 and 8•24 GC cards. Its 69-dpi screen resolution gives a slightly larger-than-WYSIWYG image. Very reliable workhorse. Requires video card (optional with Macintosh LC, IIci, and IIsi). $799. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (May '90)

Computer Care BookView Imperial ↕↕↕

This internal display adapter works with the PowerBook 140, 145, and 170 at 8-bit pixel depth. Trouble-free. Includes 6 MB of expansion RAM. Doesn't support virtual memory or RAM disks. Supports 12-, 13-, 15-, and 16-inch Apple-compatible monitors, as well as SVGA, VESA 19-inch, and VGA standards. Configured using Monitors control panel. Includes interface cable. $1,399. Computer Care, Inc., Ford Centre, 420 N. Fifth St., Ste. 1180, Minneapolis, MN 55401. 800-950-2273 or 612-371-0061. (Dec '92)

Computer Friends ColorSnap 32+ ↕↕↕½

Computer Friends ColorSnap 32+ is a NuBus card that digitizes single frames of video input. Produces above-average image quality. Software is powerful, complete, and easy to use. Provides image cataloging plus plug-ins for Photoshop and QuarkXPress. Video-in options include composite, RGB, and S-video. Live-video display is slow and uses a small window; 24-bit images can be digitized, but resolution is 640 x 480 pixels. Version 1.1 reviewed. Version 1.21 shipping. Requires Mac II series. $995. Computer Friends, Inc., 14250 N.W. Science Park Dr., Portland, OR 97229. 800-547-3303 or 503-626-2291. (July '91)

MICE RATINGS ↕ ↕½ ↕↕ ↕↕½ ↕↕↕ ↕↕↕½ ↕↕↕↕ ↕↕↕↕½ ↕↕↕↕↕

Computer Friends MovieProducer ⭐⭐⭐

This NuBus video-digitizing card supports NTSC video signals (a PAL version is also available). Input can be composite or S-video. Captures well-saturated but somewhat pixelated colors. Lacks sound input and doesn't drive Mac monitors. Includes ColorSnap software for still-video capture and DIVA VideoShop software for editing and QuickTime-video capture. Version 1.13 ColorSnap 32+ software reviewed. Requires Macintosh II series or higher, 8 MB of RAM, a color display system, and a large, fast hard drive. $1,195. Computer Friends, Inc., 14250 N.W. Science Park Dr., Portland, OR 97229. 800-547-3303 or 503-626-2291. (Oct '92)

Darius TSM1431 ⭐⭐⭐⭐

This autosynchronous color monitor has a shadow-mask tube and is moderately priced. Active screen size is 11.5 inches. Scan rate ranges from 15.75 to 39 kHz horizontally and from 50 to 90 kHz vertically. Has etched antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, horizontal and vertical size, and input select. Signal compatibility includes Mac II series and 1,024 x 768 pixels interlaced at 60 Hz. Incomplete documentation. $599. Darius Technology, Inc., 22028 26th Ave. S.E., Bothell, WA 98021. 206-483-8889. (Aug '92)

DiVA VideoShop ⭐⭐⭐

This digital-video-editing package provides tools for integrating QuickTime movies with still images and sound files. Easy-to-use, highly intuitive interface. Works well with QuickTime-video frame grabber boards such as SuperMac's VideoSpigot. Poor sound handling. Excellent tools for organizing files and creating special effects. Weak documentation. Includes HyperCard application and the Image Bank CD-ROM, a large collection of business-oriented QuickTime movies. Version 1.0 reviewed. Requires System 7 or later, HyperCard, and a color display system. $599. DiVA Corp., 222 Third St., Ste. 3332, Cambridge, MA 02142. 617-491-4147. (Nov '92)

E-Machines ColorPage E16 ⭐⭐½

This affordable 8-bit-color display system includes a PDS video card, a cable, and a 16-inch Toshiba shadow-mask monitor. Has poor display characteristics, and cable is poorly shielded. Resolution is WYSIWYG 72 dpi. Active screen size is 14.5 inches diagonally. External monitor controls include brightness/contrast, vertical position/size, horizontal position/size, and degaussing. Good software features. Requires Macintosh LC. $1,828. E-Machines, Inc., 9305 S.W. Gemini Dr., Beaverton, OR 97005. 800-344-7274 or 503-646-6699. (Feb '92)

E-Machines ColorPage T16 ⭐⭐⭐½

This affordable 8-bit-color display system includes a PDS video card, a cable, and a 16-inch Sony Trinitron monitor. Has excellent display characteristics. Resolution is WYSIWYG 72 dpi. Active screen size is 14.5 inches diagonally. Only external monitor controls are power switch and vertical/horizontal convergence. Brightness and contrast are controlled by software. Automatic degaussing. Good software features. Cable is poorly shielded. Requires Macintosh LC. $2,228. E-Machines, Inc., 9305 S.W. Gemini Dr., Beaverton, OR 97005. 800-344-7274 or 503-646-6699. (Feb '92)

E-Machines ColorPage T16/24 ⭐⭐⭐⭐⭐

This 24-bit color display system combines the ColorPage T16 monitor with a 24-bit video card. This high-quality, affordable system scored highest in overall performance in our lab-report testing. The 16-inch-diagonal screen size should be large enough for most professional applications. Sharpness, focus, and color quality are nearly perfect. Requires Macintosh II series or higher. $3,598. E-Machines, Inc., 9305 S.W. Gemini Dr., Beaverton, OR 97005. 800-344-7274 or 503-646-6699. (May '91)

E-Machines ColorPage T16/8 ⭐⭐⭐⭐⭐

The ColorPage T16/8 is a bright, top-quality 8-bit-color monitor. The monitor is a razor-sharp Sony Trinitron, and the video card is also excellent. Requires Macintosh II series. With 8-bit card, $2,598. E-Machines, Inc., 9305 S.W. Gemini Dr., Beaverton, OR 97005. 800-344-7274 or 503-646-6699. (May '90) ★ '88 Eddy

E-Machines Futura MX ⭐⭐½

Futura MX is an accelerated 24-bit-color video card that supports 38 virtual-screen sizes. Affordable, but not as fast as similar products. Low power consumption. Card's timing settings are controlled with mechanical switch instead of with software. Document scrolling is performed only in accelerated mode. Supports resolutions of 640 x 480, 800 x 600, 832 x 624, and 1,024 x 768 pixels. Supports hardware pan and zoom. Five-year warranty. Requires Mac II series or higher. $1,599. E-Machines, Inc., 9305 S.W. Gemini Dr., Beaverton, OR 97005. 800-344-7274 or 503-646-6699. (May '92)

E-Machines QuickView Studio QT ⭐⭐½

This NuBus video-digitizing card supports NTSC or PAL video signals. Input can be composite, RGB, or S-video. Included daughtercard allows sound input with 22-kHz stereo sampling. Doesn't drive Mac monitors. Captures 8- or 16-bit color only. Includes software for still-video capture but not for editing or QuickTime-video capture. Power consumption is relatively high at 21.25 watts. Version 1.5 software reviewed. Requires Mac II series or higher, 8 MB of RAM, a color display system, and a large, fast hard drive. With sound-input daughtercard, $1,995. E-Machines, Inc., 9305 S.W. Gemini Dr., Beaverton, OR 97005. 800-344-7274 or 503-646-6699. (Oct '92)

E-Machines T19/24 ⭐⭐⭐⭐½

This 24-bit-color display system combines the E-Machines T19 monitor with a 24-bit-video card. This high-quality, affordable combination delivered excellent overall performance in our lab-report testing. The 19-inch-diagonal screen size provides enough desktop real estate for nearly all professional applications. Sharpness, focus, and color quality are outstanding. Good 39-page manual. Our test unit had slight, almost unnoticeable streaking along bottom edge of active screen area. Requires Macintosh II series or higher. $4,198 (includes monitor and 24-bit-video card). E-Machines, Inc., 9305 S.W. Gemini Dr., Beaverton, OR 97005. 800-344-7274 or 503-646-6699. (May '91)

E-Machines TX/24 ⭐⭐⭐⭐½

This 24-bit-color display system combines the E-Machines TX monitor with a 24-bit-video card. Delivers very good overall performance. The 16-inch-diagonal screen size should be large enough for most professional applications. This monitor provides a non-WYSIWYG, 87-dpi image that displays plenty of information at somewhat-reduced scale — good for page layout but a problem when you need to read small type. Excellent sharpness, focus, brightness, and color quality. Requires Macintosh SE/30 or II series with NuBus adapter. $3,298. E-Machines, Inc., 9305 S.W. Gemini Dr., Beaverton, OR 97005. 800-344-7274 or 503-646-6699. (May '91)

Envisio Notebook Display Adaptor ⭐⭐⭐

This moderately priced internal display adapter works with the PowerBook 100 at 1-bit pixel depth. Includes 2 MB of RAM but no pass-through connector for expansion memory. System must be rebooted if monitor is unplugged. Supports RAM disks. Doesn't support virtual memory or 32-bit addressing. Supports 13-, 15-, and 21-inch Apple-compatible monitors, as well as VGA standard. Includes interface cable. $495.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Envisio, Inc., 510 First Ave. N., Ste. 303, Minneapolis, MN 55403. 612-339-1008. (Dec '92) ★ '91 Eddy

Envisio Notebook Display Adaptor 030 ‡‡

This internal display adapter works with the PowerBook 140, 145, and 170 at 8-bit pixel depth. Includes 4 MB of expansion RAM. System must be rebooted if monitor is unplugged. Supports 32-bit addressing and RAM disks. Doesn't support virtual memory. Supports 12-, 13-, 15-, 16-, and 21-inch Apple-compatible monitors, as well as VGA standard. Includes interface cable. $1,395; with 6 MB of RAM, $1,695. Envisio, Inc., 510 First Ave. N., Ste. 303, Minneapolis, MN 55403. 612-339-1008. (Dec '92)

FAST Electronics Screen Machine ‡‡

This NuBus video-digitizing card supports NTSC or PAL video signals (a SECAM version is also available). Input can be composite or S-video, although S-video was nonfunctional during testing. Good image controls but produces some screen artifacts in captured images. Defaults to PAL. Lacks sound input and doesn't drive Mac monitors. Includes SM-Camera software for still-video capture, SM-Movie Machine software for editing, and SM-Movie Maker for QuickTime-video capture. Version 2.5 Camera and 1.0 Movie Maker reviewed. Requires Macintosh II series or higher, 8 MB of RAM, a color display system, and a large, fast hard drive. $1,999. FAST Electronics, 5 Commonwealth Rd., Natick, MA 01760. 508-655-3278. (Oct '92)

FAST Electronics Screen Machine Junior ‡‡

This NuBus video-digitizing card supports NTSC or PAL video signals (a SECAM version is also available). Input can be composite or S-video. Good image controls but produces some screen artifacts in captured images. Defaults to PAL. Lacks sound input and doesn't drive Mac monitors. Includes SM-Camera software for still-video capture, SM-Movie Machine software for editing, and SM-Movie Maker for QuickTime-video capture. Version 2.5 Camera and 1.0 Movie Maker reviewed. Requires Macintosh II series or higher, 8 MB of RAM, a color display system, and a large, fast hard drive. $1,299. FAST Electronics, 5 Commonwealth Rd., Natick, MA 01760. 508-655-3278. (Oct '92)

Fora Addonics Mon-7C8A ‡‡‡‡½

This Trinitron-based auto-synchronous color monitor has good spatial uniformity and color range. Diagonal active screen size is 11.75 inches. Scan rate ranges from 30 to 57 kHz horizontally and from 45 to 90 kHz vertically. External controls include image brightness/contrast, horizontal and vertical position, and horizontal and vertical size. Video-signal compatibility includes Mac II series, plus 1,024 x 768 pixels interlaced at 60 Hz or noninterlaced at 75 or 60 Hz. Incomplete documentation. $694. Fora, Inc., 30 W. Montague Expy., San Jose, CA 95134. 408-944-0393. (Aug '92)

General Parametrics StarTime/VideoShow ‡‡

The StarTime/VideoShow is a software/hardware combination for color presentations. Using the VideoShow box and a monitor, you can play back presentations without a Mac. Software is clunky and doesn't really take advantage of Mac graphics, because its main purpose is to convert Mac presentations into VideoShow format. Version 1.0 reviewed. Version 2.2 shipping. Software requires Macintosh SE or later, System 6.03 or later, presentation software, and a hard drive; VideoShow requires a color monitor. StarTime, $199; VideoShow Model HQ, $4,995. General Parametrics Corp., 1250 Ninth St., Berkeley, CA 94710. 800-223-0999 or 510-524-3950. (Nov '89)

Generation Systems Color 24 ‡‡‡‡

This 24-bit color display system combines an Ikegami Trinitron monitor with a 24-bit video card. This high-quality, affordable combination delivers very good overall performance. The 20-inch-diagonal screen size is adequate for most professional applications. Excellent brightness, sharpness, focus, and color quality, but color convergence is slightly off. Requires Macintosh II series. $5,595. Generation Systems, Inc., 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (May '91)

Generation Systems CT-20 ‡‡‡‡

This 20-inch color monitor is bright and fairly sharp. Excellent color quality and software. Hardware capabilities include pan and zoom (with 24-bit card only). Requires SE/30 or Mac II series. 8-bit (Mac II or SE/30), $3,999; 24-bit (Mac II only), $5,595. Generation Systems, Inc., 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (May '90)

Generation Systems TV Board ‡‡‡

The Generation Systems TV Board is a video-out NuBus card that outputs only an NTSC composite signal, but its 8-bit color or gray-scale image is clean. No video-in options, digitizing, or file-save formats. Easy to install and use. Lacks software but includes cables. Toll-free unlimited technical support. Requires Macintosh II series. $395. Generation Systems, Inc., 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (Aug '91)

Generation Systems TV Box ‡‡‡

The TV Box is an external component that accepts the Mac's 15-pin RGB cable and can output an NTSC composite signal. Poor image quality but easy to use. No other video-in options, digitizing, or file-save formats. TV Box software facilitates Mac-to-TV link. Includes cables. Toll-free unlimited technical support. Requires Macintosh II series. $395. Generation Systems, Inc., 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (Aug '91)

Lapis DisplayServer II ‡‡‡½

The DisplayServer II is a monochrome NuBus video card that lets a Mac II run PC-compatible VGA monitors. The card has occasional problems with some Mac programs, and it isn't cost-effective if used with a small monitor. Users on a tight budget, however, can save by using this card with a recycled big VGA monitor — it produces a crisp, jitter-free image. Version 2.0 reviewed. Version 4.5 shipping. Requires Macintosh II series or higher. $349. Lapis Technologies, 1100 Marina Village Pkwy., Ste. 100, Alameda, CA 94501. 800-435-2747 or 510-748-1600. (June '91)

MacGenius ‡‡‡‡

This 15-inch monochrome monitor has a warm-color phosphor and bright screen. Good software with inverse video capability. Card difficult to install. Screen resolution is 80 dpi. Requires Macintosh Plus or SE. $1,495. Genius Technology, 755 E. 31st St., Hastings, MN 55033. 800-328-9524 or 612-437-2233. (Apr '90)

Mag Innovision MX14S ‡‡‡‡

This Trinitron-based auto-synchronous color monitor has good color range. Active screen size is 12 inches. Scan rate ranges from 30 to 64 kHz horizontally and from 50 to 120 kHz vertically. Has no antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, and horizontal and vertical size. Degaussing and input select are automatic. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz and noninterlaced at 75 or 60 Hz. Incomplete documentation. $799; optional Mac II cable, $25. Mag Innovision, 4392 Corporate Center Dr., Los Alamitos, CA 90720. 714-827-3998. (Aug '92)

Mass Microsystems ColorSpace IIi/FX ‡‡‡½

The ColorSpace IIi/FX are two NuBus cards that bring live 24-bit video to the Mac. They

MICE RATINGS ‡ ‡½ ‡‡ ‡‡½ ‡‡‡ ‡‡‡½ ‡‡‡‡ ‡‡‡‡½ ‡‡‡‡‡

can drive the Mac monitor and a TV display. The FX board converts regular NTSC composite-video signals to RGB. The IIi board lets you mix live video with computer graphics. Allows sophisticated special effects, but software and manuals are inadequate. Includes NTSC Digitizer for grabbing 640-x-480-pixel PICT frames for export. Also includes VideoAuthor tool kit for HyperCard scripting. Toll-free unlimited technical support. Requires Macintosh II series and appropriate cable. IIi and ColorSpace FX bundle, $2,495. Mass Microsystems, Inc., 810 W. Maude Ave., Sunnyvale, CA 94086. 800-522-7979 or 408-522-1200. (Aug '91) ★ '88 Eddy

Mass Microsystems QuickImage 24 ↕↕½

This moderately priced NuBus video-digitizing card supports NTSC or PAL video signals. Input can be composite or S-video. Poor image quality and low frame-capture rate. Lacks sound input and doesn't drive Mac monitors. Includes easy-to-use QuickImage software for still-video capture. Lacks image controls and software for editing and QuickTime-video capture. Version 2.0 software reviewed. Requires Macintosh II series or higher, 8 MB of RAM, a color display system, and a large, fast hard drive. $495. Mass Microsystems, Inc., 810 W. Maude Ave., Sunnyvale, CA 94086. 800-522-7979 or 408-522-1200. (Oct '92)

Mirror PixelView I ↕↕↕½

This monochrome full-page display system is unique, because it can be used with a Mac Plus. Comes with a screen saver and large-cursor option and useful software to manage pop-up menus and the menu bar. Image quality is average. Video cards are also available for the SE, SE/30, and Mac II series. Comes with tilt/swivel stand. Requires Macintosh Plus or later. $477. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (Feb '91)

Mirror ProView 20" ↕↕↕

This affordable 8-bit-color display system includes a PDS video card, a cable, and a 20-inch Sony Trinitron monitor. Has good display characteristics. Resolution is WYSIWYG 72 dpi. Active screen size is 17.8 inches diagonally. External monitor controls include brightness/contrast, vertical position/size, horizontal position/size, vertical/horizontal convergence, and degaussing. Good software features. Requires Macintosh IIsi and PDS adapter. $2,799 direct; PDS adapter, $50. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (Feb '92)

Mirror ProView 24-bit Display System ↕↕↕↕½

This 24-bit-color display system combines an Ikegami Trinitron with a 24-bit-video card. A high-quality, affordable combination, this system delivers good overall performance. The 19-inch-diagonal screen size is large enough for most professional applications. Sharpness, focus, and color quality are excellent, but geometry is slightly off. Good software. Requires Macintosh II series. $2,999. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (May '91)

Mitsubishi Diamond Pro 14 ↕↕↕↕

This autosynchronous color monitor has a shadow-mask tube with a low display-nuisance rating. Active screen size is 12.75 inches. Scan rate ranges from 30 to 58 kHz horizontally and from 50 to 90 kHz vertically. Has etched antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, and horizontal and vertical size. Includes useful pincushioning control that's not very intuitive. Automatic degaussing. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz and noninterlaced at 75 or 60 Hz. Good documentation. $839; optional Mac II cable, $35. Mitsubishi Electronics America, 5665 Plaza Dr., Cypress, CA 90630. 800-843-2515 or 714-220-2500. (Aug '92)

Mitsubishi Diamond Pro 37 ↕↕↕½

This autosynchronous monitor contains a 37-inch CRT that supports resolutions as high as 1,024 x 768 pixels. Bright colors. Excellent focus and wide viewing angle. Imperfect screen geometry may be annoying at close range. Has easily accessible system connections. Weighs a hefty 225 pounds. Poor documentation. Requires Macintosh video cable. $9,995; Mac video cable, $54; optional cabinet pedestal, $995. Mitsubishi Electronics America, 5665 Plaza Dr., Cypress, CA 90630. 800-843-2515 or 714-220-2500. (Dec '92)

Mobius One Page Display ↕↕↕↕

The Mobius One Page Display is a 15-inch monochrome full-page display that's a good choice for SE owners. Software for the SE model provides multiscreen capability, a screen saver, acceleration control, and other features. Video cards are available for the SE, SE/30, and Mac II series. The interface card that comes with the SE model is also a CPU accelerator that speeds up all processing. Has antiglare coating and comes with a tilt/swivel stand. Requires Macintosh SE or higher with System 6.05 or later. $595 direct; with 68030 accelerator on card, $1,095. Mobius Technologies, 5835 Doyle St., Ste. 107, Emeryville, CA 94608. 800-523-7933 or 510-523-7900. (Feb '91)

NEC MultiSync 4FG ↕↕↕↕↕

This autosynchronous color monitor has a shadow-mask tube with good color tracking. Active screen size is 12.75 inches. Scan rate ranges from 27 to 57 kHz horizontally and from 55 to 90 kHz vertically. External controls include image brightness/contrast, horizontal and vertical position, horizontal and vertical size, pincushioning, degaussing, and input select. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced and noninterlaced at 60 Hz. Input-connector cable is permanently attached. Good documentation. $949; optional OCLI antiglare treatment, $79. NEC Technologies, Inc., 1414 Massachusetts Ave., Boxborough, MA 01719. 800-632-4636 or 508-264-8000. (Aug '92)

NEC MultiSync 6FG ↕↕↕↕

This autosynchronous color monitor has a 21-inch shadow-mask tube with good color tracking and excellent brightness. Active screen size is approximately 18 inches. Supports resolutions as high as 1,152 x 870 pixels. AccuColor System lets you match display colors to selected output device. Software-only version provides multiple resolutions with Quadra's built-in video. Good tutorial software. $3,798; with 24-bit MacFG 24X video card, $4,798. NEC Technologies, Inc., 1414 Massachusetts Ave., Boxborough, MA 01719. 800-632-4636 or 508-264-8000. (Sept '92)

Neotech Image Grabber and Colour Adapter Module ↕↕↕↕

Neotech Image Grabber is a NuBus card that digitizes single frames of still-video input. Excellent image quality. Outputs gray-scale NTSC video. The Colour Adapter Module is an optional external box that adds color capability. Software is powerful but complex. Video-in options include composite, RGB, and S-video. Live-video display uses resizable 640-x-480 pixel window; 24-bit images can be digitized, but resolution is 640 x 480 pixels. Version 1.5 reviewed. Version 2.05 shipping. Requires Macintosh II series or higher. Image Grabber, $1,499; Colour Adapter Module, $499. Advent Computer Products, Inc., 449 Santa Fe Dr., Ste. 213, Encinitas, CA 92024. 619-942-8456. (July '91)

Nissei Sangyo Hitachi 15 MVX ↕↕↕↕½

This autosynchronous color monitor has a shadow-mask tube with good objective geometry. Active screen size is 12.5 inches. Scan rate ranges from 30 to 58 kHz horizontally and from 50 to 100 kHz

MICE RATINGS ↕ ↕½ ↕↕ ↕↕½ ↕↕↕ ↕↕↕½ ↕↕↕↕ ↕↕↕↕½ ↕↕↕↕↕

vertically. Has antistatic silica antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, and horizontal and vertical size. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz and noninterlaced at 75 or 60 Hz. Incomplete documentation. $795. Nissei Sangyo America - Hitachi, 800 South St., Waltham, MA 02154. 800-441-4832 or 617-893-5700. (Aug '92)

Nutmeg 19" Mono Display ★★★★

This 19-inch monochrome monitor is bright and has average-quality focus. Geometry is fair. Phosphor is bluish with a yellowish center. Includes Stepping Out II. Screen resolution is 72 dpi. Requires Macintosh Plus, SE, SE/30, Classic, LC, or II series. $1,280. Nutmeg Systems, 25 South Ave., New Canaan, CT 06840. 800-777-8439 or 203-966-3226. (Apr '90)

Nutmeg N19Csi ★★★½

This affordable 8-bit-color display system includes a PDS video card, a cable, and a 20-inch Sony Trinitron monitor. Has average display characteristics, and video card has no FPU slot. Skimpy software. Active screen size is 17.8 inches diagonally. Resolution WYSIWYG 72 dpi. External monitor controls include brightness/contrast, vertical position/size, horizontal position/size, vertical/horizontal convergence, and degaussing. Requires Macintosh IIsi. $3,949. Nutmeg Systems, 25 South Ave., New Canaan, CT 06840. 800-777-8439 or 203-966-3226. (Feb '92)

Outbound Outrigger Intelligent Monitor ★★★

This integrated SCSI display adapter and full-page monitor works with Outbound notebook computers at 1-bit pixel depth. Fast. Easy installation. Also works with the Mac Plus, SE, SE/30, all Classics, the Mac II family, and PowerBooks. Monitor has antiglare treatment and 82-dpi resolution. Active screen area is 8 x 10.5 inches. Supports 32-bit addressing and RAM disks. Doesn't support virtual memory. Configured using Monitors control panel. Includes interface cable and tilt/swivel stand. $949. Outbound Systems, Inc., 4840 Pearl E. Cir., Boulder, CO 80301. 800-444-4607 or 303-786-9200. (Dec '92)

Panasonic PanaSync C1395 ★★★½

This autosynchronous color monitor has a shadow-mask tube with good color tracking. Active screen is 12.5 inches. Scan rate ranges from 30 to 57 kHz horizontally and from 50 to 90 kHz vertically. Has etched antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, and horizontal and vertical size. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced and noninterlaced at 60 Hz. Input-connector cable is permanently attached. Good documentation. $750; optional Mac II cable, $40. Panasonic, Two Panasonic Way, Secaucus, NJ 07094. 800-742-8086 or 201-348-7000. (Aug '92)

PCPC II 16" Color ★★★★½

This 24-bit-color display system combines a Sony Trinitron monitor with a 24-bit-video NuBus card. A high-quality, affordable combination, this system delivers good overall performance. The 16-inch-diagonal screen size is large enough for most professional applications, but the 82-dpi pixel density produces an image that may appear too condensed. Sharpness, focus, and color quality are excellent. Includes Stepping Out II software. Requires Mac II series or higher. $2,495. PCPC (Personal Computer Peripherals Corp.), 4 Daniels Farm Rd., Ste. 326, Trumbull, CT 06611. 800-622-2888. (May '91)

PCPC II 19" Color ★★★★

This 24-bit-color display system combines an Ikegami Trinitron monitor with a 24-bit-video NuBus card. A high-quality, affordable combination, this system delivers good overall performance. The 19-inch-diagonal screen size is large enough for nearly all professional applications. Sharpness, focus, and color quality are excellent, but color is slightly misconverged. Includes Stepping Out II software. Requires Mac II series or higher. $2,995. PCPC (Personal Computer Peripherals Corp.), 4 Daniels Farm Rd., Ste. 326, Trumbull, CT 06611. 800-622-2888. (May '91)

PCPC Shadowgraph ★★★★½

The PCPC Shadowgraph system includes a 19-inch monochrome Ikegami monitor and an 8-bit-video card, delivering excellent gray linearity and MTF sharpness, with good focus and geometry. Only 2 or 256 gray levels, but gray-scale image is superb. Stepping Out II software included. Skimpy documentation. Tilt/swivel stand. Requires Mac II series or higher. $1,295. PCPC (Personal Computer Peripherals Corp.), 4 Daniels Farm Rd., Ste. 326, Trumbull, CT 06611. 800-622-2888. (Oct '89)

Princeton MultiView II ★★½

The overall performance of this 15-inch-diagonal, monochrome full-page monitor was below average in our lab tests. Screen geometry and focus are poor. Comes with a tilt/swivel stand. With board for SE or SE/30, $845; with board for Mac II series, $995; antiglare treatment, $75. Princeton Publishing Labs, Inc., 101 Business Park Dr., Ste. 100, Skillman, NJ 08558. 609-924-1153. (Feb '91)

Princeton Ultra 1400 ★★★

This autosynchronous color monitor has a shadow-mask tube with poor color tracking. Active screen size is 12.5 inches. Scan rate ranges from 15 to 36.5 kHz horizontally and from 45 to 120 kHz vertically. Has etched antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, and horizontal and vertical size. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz and noninterlaced at 75 and 60 Hz. Good documentation. $479 direct; optional Mac II cable, $19.95; optional Mac LC cable, $29.95. UDSI (Ultimate Display Solutions, Inc.), 1125 Northmeadow Pkwy., Roswell, GA 30076. 800-221-1490 or 404-664-1010. (Aug '92)

Proxima Ovation ★★★★½

Ovation is a color active-matrix LCD panel for use with overhead projectors. Displays brilliant, contrasty image that, unlike conventional LCD panels, keeps up with the fastest animations, mouse actions, or even 30-fps live video. Resolution is 640 x 480 pixels. The panel can address up to 3,375 true colors from the Mac, or up to 24,000 colors in Video mode. Supports Mac RGB, VGA (IBM PC), and either NTSC or PAL broadcast standards. Accepts VHS or S-VHS input from camcorders, laserdisc players, and VCRs. Optional Cyclops hardware includes optical sensor that reacts to point-and-click input on-screen from a light-tipped wand. Optional Laser Pointer lets you control Cyclops while standing 25 feet away from screen. Version 1.5 reviewed. Version 3.0 shipping. Requires Macintosh II series or higher (interface kits available for other Macintosh models). $8,495; Cyclops, $749; Laser Pointer, $295. Proxima Corp., 6610 Nancy Ridge Dr., San Diego, CA 92121. 800-447-7694 or 619-457-5500. (Jan '92)

Radius Color Pivot LC ★★★★½

This affordable 8-bit-color display system includes a PDS video card, a cable, and a 15-inch Toshiba shadow-mask monitor. Active screen size is 13.22 inches diagonally. Monitor can rotate 90 degrees between portrait and landscape orientations. Offers excellent focus, color quality, and maximum usable brightness. Included software is excellent. Allows resolutions of 82 dpi or WYSIWYG 72 dpi. Only external monitor controls are power switch and brightness/contrast. Automatic degaussing. Monitor also available with Radius NuBus cards for other Macs. Requires Macintosh LC. Monitor only, $1,549; LC interface card, $599. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★

We Have Connections



How do we sell products at these low prices? Manufacture it and sell it Direct to the customer.

You save $40 or more on every TurboNet ST– because we took the middlemen out of the loop

TurboNet ST allows you to use ordinary phone wiring to connect your Macintoshes, printers and peripherals together. It's the smart buyers alternative to Apple and Farallon's expensive connectors.

Only TurboNet ST has all of these features:

- ***LED activity lights***
- ***Self terminating***
- ***PhoneNet & AppleTalk compatible***
- ***Lifetime Warranty***

Anyone who has experienced the task of troubleshooting an AppleTalk network and tried to determine which node was sending or receiving data on the network can tell you: *You can't see where network activity stops without LED lights!* And only TurboNet ST has activity lights.

The Best Value

Features	TurboNet ST	PhoneNet
LED Activity lights	✔	
Self-Terminating	✔	
Lifetime warranty	✔	✔
For all Macs	✔	✔
Cool Black Color	✔	
Under $15	✔	
Surge protection	✔	✔
30-day Money Back Satisfaction Guarantee	✔	*

*Policy varies with individual retailers.

Our unique self-terminating feature means you won't ever have to troubleshoot termination problems with a network that uses TurboNet ST's. It's that simple. And termination is something we can all do without these days.

100% compatibility with all Macs & PhoneNet connectors is guaranteed by Focus. And if any TurboNet ST ever fails, we will replace it with our lifetime product warranty.

So stop wasting your time and money with overpriced PhoneNet connectors– order TurboNet ST today.

800-538-8866

Call toll free to order now

Inquiries welcomed from Resellers, VARs, and Systems Integrators

FOCUS enhancements



Call for your FREE Catalog of Mac Enhancements

How to Order: Our Customer Advisors will help you Monday thru Friday 9 to 8, Sat & Sun 11 to 5 Eastern Time. We accept VISA, MasterCard, American Express, Discover, Fortune 500 PO's, Government and University PO's (approved), business and personal checks (with check approval), Cashiers checks, Money Orders, and COD. • Focus Enhancements, Inc. 800 West Cummings Park, Woburn, MA. 01801 • 617-938-8088, fax 938-7741

© 1992 Focus Enhancements, Inc. All rights reserved. Focus, TurboNet ST, "The Focus Smart Buyers Guide", are registered trademarks of Focus Enhancements, Inc. PhoneNet is a registered trademark of Farallon Computing, Inc., Farallon suggested retail prices verified on 6/24/92. Macintosh, LaserWriter, AppleTalk, and LocalTalk are registered trademarks of Apple Computer, Inc. Manufactured under Patent License from Farallon Computing, Inc., All prices and items subject to change and availability.

2795 or 408-434-1010. (Feb '92)

Radius Color Pivot si ⚡⚡⚡⚡½

This affordable 8-bit-color display system includes a PDS video card, a cable, and a 15-inch Toshiba shadow-mask monitor. Active screen size is 13.22 inches diagonally. Monitor can rotate 90 degrees between portrait and landscape orientations. Offers excellent focus, color quality, and maximum usable brightness. Included software is excellent and allows resolutions of 82 dpi or WYSIWYG 72 dpi. Only external monitor controls are power switch and brightness/contrast. Degaussing is automatic. Card uses no adapter for installation. Monitor also available with Radius NuBus cards for other Macs. Requires Mac IIsi. Monitor only, $1,549; IIsi interface card, $599. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (Feb '92)

Radius Full Page Display ⚡⚡⚡⚡

The Radius Full Page Display is a bright monochrome portrait display, with screen resolution slightly below that of true WYSIWYG. It is capable of 256 shades of gray with available Radius cards. A slight screen flicker is perceptible. Requires Macintosh Plus or later. $699. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (Apr '90) ★ '86 Eddy

Radius Pivot for Built-in Video ⚡⚡⚡⚡½

The Radius Pivot for Built-in Video is an impressive 15-inch-diagonal full-page display. It offers excellent focus and maximum usable brightness. Includes the unique ability to rotate 90 degrees between portrait and landscape orientations. Comes with a tilt/swivel stand. Video card requires Macintosh II series, SE/30, or LC. Monitor only, $849 (for Macs with built-in video); optional video card, $599. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (June '91)

Radius PowerView ⚡⚡⚡½

This trouble-free SCSI display adapter works at 8-bit pixel depth with the Classic II and PowerBook 140 and 170. Easy installation. Slow when set to 8-bit color. Supports 13-, 15-, 16-, and 21-inch Apple-compatible monochrome monitors, as well as Radius Pivot monitors and VGA standard. Supports virtual memory, 32-bit addressing, and RAM disks. Configured using Monitors control panel. Includes interface cable. $599. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (Dec '92)

Radius PrecisionColor 24x ⚡⚡⚡½

The PrecisionColor 24x is an accelerated 24-bit-color video card that lets you change screen resolutions on the fly. Good performance. Offers seven resolution choices ranging from 560 x 760 up to 1,152 x 882. An adapter for the IIsi is available. Requires Macintosh II series or higher. $1,999. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (May '92)

Radius PrecisionColor Display/20 ⚡⚡⚡⚡

This autosynchronous color monitor has a bright 20-inch Trinitron tube with excellent color. Active screen size is 18 inches. Supports resolutions as high as 1,152 x 870 pixels. Screen has excellent glare-protection coating. Allows precise control of color convergence and saturation, especially with optional PrecisionColor Calibrator. Degaussing is automatic at power-up only. Monitor only, $3,299; with PrecisionColor 24X 24-bit video card, $1,999; PrecisionColor Calibrator, $599. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (Sept '92)

Radius Two Page Display/19 ⚡⚡⚡⚡

The Radius Two Page Display/19 is a bright, well-focused 19-inch monochrome display system. Comes with Radius' famous software, which includes tear-off menus and screen capture. Requires Macintosh SE, SE/30, or II series. $1,099. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (Apr '90) ★ '88 Eddy

Radius Two Page Display/21 ⚡⚡⚡⚡½

This monochrome monitor's high pixel density may not offer perfect WYSIWYG, but it does display a lot of information. Its lack of glare protection is a trade-off in favor of maximum brightness. Excellent geometry. Linearity, focus, and lack-of-nuisance ratings above average. Requires Mac SE, SE/30, or II series. $1,399. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (Oct '90)

RadiusTV ⚡⚡⚡

The RadiusTV is a NuBus card with a tuner that can pick up broadcast and cable TV. Accepts audio from TVs, VCRs, and videodisc players. Clear, accurate image quality. Limited software. Video-in options include composite, RF, and RGB. Supports NTSC or PAL. Live-video display in 8- or 16-bit mode only; 8- or 16-bit images can be digitized. Can read and capture closed-captioned text and can display full-motion video at 30 fps. Audio can fall out of sync with video due to NuBus data-transfer limitations. Requires Macintosh II series or higher. $1,699. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (July '91) ★ '90 Eddy

RasterOps 24MxTV ⚡⚡⚡

This NuBus video-digitizing card supports NTSC, PAL, and SECAM video signals. Supports high frame-capture rates. Input can be composite or S-video. Drives 13-inch and 16-inch Mac monitors and provides 24-bit color at 640 x 480 pixels. Includes expansion connectors. Lacks sound input. Includes MediaGrabber software for still-video and QuickTime-video capture but not editing. Basic image controls. Three-year warranty. Version 2.0 software reviewed. Requires Macintosh II series or higher, 8 MB of RAM, a color monitor, and a large, fast hard drive. $2,199. RasterOps, 2500 Walsh Ave., Santa Clara, CA 95051. 800-729-2656 or 408-562-4200. (Oct '92)

RasterOps 24STV ⚡⚡⚡½

This NuBus video-digitizing card supports NTSC, PAL, and SECAM video signals. Input can be composite or S-video. Drives 13-inch Mac monitors and provides 24-bit color at 640 x 480 pixels. Includes expansion connectors. Basic image controls. Lacks sound input. Includes MediaGrabber software for still-video and QuickTime-video capture but not editing. Three-year warranty. Version 2.0 software reviewed. Requires Macintosh II series or higher with 8 MB of RAM, a color monitor, and a large, fast hard drive. $999. RasterOps, 2500 Walsh Ave., Santa Clara, CA 95051. 800-729-2656 or 408-562-4200. (Oct '92)

RasterOps 24XLi ⚡⚡½

RasterOps 24XLi is a 24-bit-color accelerated video card. With additional 16 MB of RAM, can support on-board 10-MB RAM disk, hardware pan and zoom, extended desktop, and GWorld QuickDraw routines. Three-year warranty. Requires Macintosh II series or higher. $2,499. RasterOps, 2500 Walsh Ave., Santa Clara, CA 95051. 800-729-2656 or 408-562-4200. (May '92)

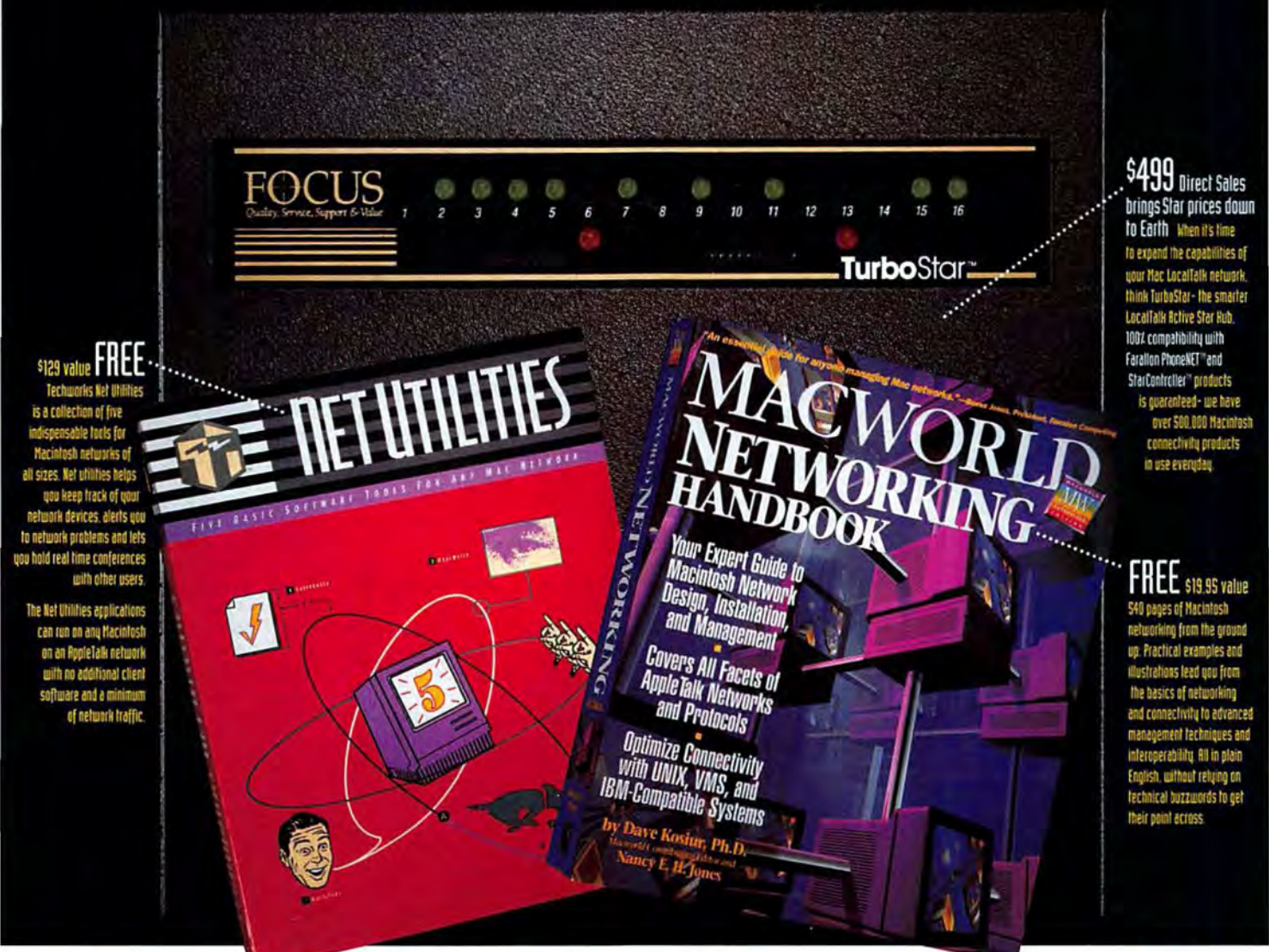
RasterOps 24XLTV ⚡⚡⚡½

This 24-bit-color accelerated video card supports hardware pan and zoom plus many virtual-screen sizes. Good image quality. Includes NTSC, PAL, and SECAM capture and display. Input can be composite, RGB, or S-video. Resolution choices include 640 x 480, 800 x 600, 1,024 x 768, and 1,152 x 870 pixels. Lacks sound input. Includes MediaGrabber software for still-video and QuickTime-video capture but not editing. Basic image controls. Optional RISC-based daughterboard boosts QuickTime playback and video-capture frame rate. Has relatively high power consumption of 19.5 watts. Three-year warranty. Version 2.0

MICE RATINGS ⚡ ⚡½ ⚡⚡ ⚡⚡½ ⚡⚡⚡ ⚡⚡⚡½ ⚡⚡⚡⚡ ⚡⚡⚡⚡½ ⚡⚡⚡⚡⚡

SuperStar

pass up this Star, and you could lose a bundle



$129 value FREE Techworks Net Utilities is a collection of five indispensable tools for Macintosh networks of all sizes. Net utilities helps you keep track of your network devices, alerts you to network problems and lets you hold real time conferences with other users.

The Net Utilities applications can run on any Macintosh on an AppleTalk network with no additional client software and a minimum of network traffic.

$499 Direct Sales brings Star prices down to Earth When it's time to expand the capabilities of your Mac LocalTalk network, think TurboStar - the smarter LocalTalk Active Star Hub. 100% compatibility with Farallon PhoneNET™ and StarController™ products is guaranteed - we have over 500,000 Macintosh connectivity products in use everyday.

FREE $19.95 value 540 pages of Macintosh networking from the ground up. Practical examples and illustrations lead you from the basics of networking and connectivity to advanced management techniques and interoperability. All in plain English, without relying on technical buzzwords to get their point across.



all for the FREE ocus Buyers Guide your source for saving 40%-70% on Removable, Optical, and ixed Storage, ocal Talk, thernet, demory, nd dozens f hard to find lac Accessories

WELCOME TO A BETTER WAY TO PURCHASE MAC ENHANCEMENTS

Save hundreds by direct. We've eliminated the middleman, and passed the savings on to you, *saving you 40% to 70% everyday.*

TURBOSTAR EXPANDS YOUR LOCALTALK NETWORK WITH THE PROVEN RELIABILITY OF A STAR HUB

The smart buyers choice is TurboStar at $499. And now every TurboStar features ***TechWorks Net Utilities*** - an indispensable collection of five networking tools: ❶ MultiChat ❷ NetTimer ❸ NodeWatch ❹ LaserCheck ❺ NameScan. You *also* receive the ultimate resource: ***MACWORLDS Network Handbook:*** your expert guide to Network Design, Installation and Management (540 pg).

Absolutely The Best Value

Focus TurboStar 16 Port Hub Including Network Bundle

$499.99

includes 30-day money back satisfaction guarantee and full 3-year product warranty

compare price with

Farallon Star Controller 12 Port Hub PN307 and PN357

$1295.00 suggested retail

$899.00 warehouse price!

prices verified on September 1992

ONLY TURBOSTAR GIVES YOU 16 PORTS (ONLY 12 IN BRAND 'F'), LED STATUS LIGHTS, A FULL 3-YEAR WARRANTY, PLUS $159 OF VALUE-ADDED EXTRAS FOR ONLY $499 DIRECT

We money-back guarantee 100% network compatibility. And *no one* offers better Product Support and Value. Try TurboStar for 30 days. If for any reason, you're not 100% pleased, return it for a prompt courteous refund.

CALL NOW TO ORDER - *and ask for your Free Buyers Guide*

800.538.8866

VISA MasterCard American Express Discover

FOCUS enhancements

How to Order: Our Customer Advisors will help you Monday thru Friday 9 to 8, Sat & Sun 11 to 5 Eastern Time. We accept VISA, MasterCard, American Express, Discover, Fortune 500 PO's, Government and University PO's (approved), business and personal checks (with check approval), Cashiers checks, Money Orders, and COD. • Focus Enhancements, Inc. 800 West Cummings Park, Woburn, MA. 01801 • 617 938-8088, fax 938-7741

© 1992 Focus Enhancements, Inc. All rights reserved. Focus, "The Focus Smart Buyers Guide", TurboStar, are registered trademarks of Focus Enhancements, Inc. All prices and items subject to change and availability. All product names are trademarks of their respective holders.

CIRCLE 78 ON READER SERVICE CARD.

software reviewed. Version 2.1 shipping. Requires Macintosh II series or higher, 8 MB of RAM, a color monitor, and a large, fast hard drive. $3,499. RasterOps, 2500 Walsh Ave., Santa Clara, CA 95051. 800-729-2656 or 408-562-4200. (Oct '92)

RasterOps MediaTime ⭐⭐⭐⭐

This NuBus video-digitizing card supports NTSC, PAL, and SECAM video signals. Has trouble fitting properly into IIcx, IIci, or Quadra 700. Input can be composite or S-video. Provides two sound inputs and two outputs with 44 kHz stereo sampling. Drives 13-inch Mac monitors and has basic image controls. Provides 24-bit color at 640 x 480 pixels. Includes MediaGrabber software for still-video and QuickTime-video capture but not editing. Three-year warranty. Version 2.0 software reviewed. Requires Macintosh II series or higher, 8 MB of RAM, a color display system, and a large, fast hard drive. $1,999. RasterOps, 2500 Walsh Ave., Santa Clara, CA 95051. 800-729-2656 or 408-562-4200. (Oct '92)

RasterOps Video Expander ⭐⭐⭐½

The RasterOps Video Expander is an external component that accepts the Mac's 15-pin RGB cable and outputs an NTSC composite, RGB, or S-video signal. Easy to use. No other video-in options, digitizing, or file-save formats. No Mac RGB-output capability. No bundled software. Includes cables. Unlimited technical support. Three-year warranty. Version 1.0 reviewed. Version II shipping. Requires Macintosh II series. $699. RasterOps, 2500 Walsh Ave., Santa Clara, CA 95051. 800-729-2656 or 408-562-4200. (Aug '91)

RasterOps VideoTime ⭐⭐⭐

This NuBus video-digitizing card supports NTSC, PAL, and SECAM video signals. Supports high frame-capture rates. Input can be composite or S-video. Lacks sound input. Includes MediaGrabber software for still-video and QuickTime-video capture but not editing. Basic image controls. Three-year warranty. Version 2.0 reviewed. Requires Macintosh II series or higher, 8 MB of RAM, a color monitor, and a large, fast hard drive. $1,499. RasterOps, 2500 Walsh Ave., Santa Clara, CA 95051. 800-729-2656 or 408-562-4200. (Oct '92)

Relax Ikegami Trinitron ⭐⭐⭐½

This 20-inch color monitor is very sharp but has annoying flicker and other electronic nuisances. Requires Macintosh II series or higher. $1,899 direct. Relax Technology, Inc., 3101 Whipple Rd., Ste. 22, Union City, CA 94587. 510-471-6112. (May '90)

Relisys RE-1422 ⭐⭐⭐⭐

This autosynchronous color monitor has a shadow-mask tube and is moderately priced. Active screen size is 12 inches. Scan rate ranges from 28 to 50 kHz horizontally and from 47 to 89 kHz vertically. External controls include image brightness/contrast, horizontal position, and horizontal and vertical size. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz and noninterlaced at 75 and 60 Hz. Incomplete documentation. $745. Relisys, 320 S. Milpitas Blvd., Milpitas, CA 95035. 408-945-9000. (Aug '92)

Sampo AlphaScan Plus KDM 1466A ⭐⭐⭐⭐

This autosynchronous color monitor has a shadow-mask tube with good geometry but poor color quality. Active screen size is 12.25 inches. Scan rate ranges from 30 to 60 kHz horizontally and from 50 to 90 kHz vertically. Has silica antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, and horizontal and vertical size. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz and noninterlaced at 75 and 60 Hz. Input-connector cable is permanently attached. Incomplete documentation. $849. Sampo America, 5550 Peachtree Industrial Blvd., Norcross, GA 30071. 404-449-6220. (Aug '92)

Samtron SC428V ⭐⭐⭐⭐

This autosynchronous color monitor has a shadow-mask tube and is moderately priced. Active screen size is 12 inches. Scan rate ranges from 31.5 to 35.5 kHz horizontally and from 50 to 90 kHz vertically. Has etched antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, and horizontal and vertical size. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz. Input-connector cable is permanently attached. Incomplete documentation. $549. Samtron Displays, Inc., 14251 E. Firestone Blvd., Ste. 101, La Mirada, CA 90638. 310-802-8425. (Aug '92)

Seiko 14" Color (CM 1445) ⭐⭐⭐⭐½

This high-quality, 24-bit-color display system combines a Seiko Trinitron monitor with a RasterOps 264 24-bit-video NuBus card. A great value. The 14-inch-diagonal screen size may be large enough for some professional applications. The WYSIWYG display has standard 72-dpi pixel density. Complete controls are provided for screen-image brightness, contrast, vertical position/size, horizontal position/size, and vertical/horizontal color convergence. Requires Macintosh II series or higher. $749. Seiko Instruments USA, Inc., 1130 Ringwood Ct., San Jose, CA 95131. 408-922-5900. (May '91)

Sigma Designs ColorMAX 8/24 ⭐⭐⭐⭐

This high-quality, affordable color display system combines a Sony Trinitron monitor with a 24-bit video card. Sharp, well-focused system delivers excellent color quality, and the 19-inch-diagonal screen size is large enough for nearly all professional applications. This WYSIWYG display has standard 72-dpi pixel density. Geometry slightly off, however. Requires NuBus-capable Mac. Monitor only, $3,595; 24-bit card, $1,495; 8-bit card, $995. Sigma Designs, Inc., 47900 Bayside Pkwy., Fremont, CA 94538. 800-845-8086 or 510-770-0100. (May '91)

Sigma Designs L—*View Multi-Mode ⭐⭐⭐⭐½

This 19-inch monochrome monitor did very well among medium-sized displays in MacUser Lab tests. Supports both 60-dpi mode and a high-resolution 120-dpi mode. Sharpest in normal 60-dpi mode. Has horizontal centering control. Requires Macintosh SE, SE/30, LC, LC II, or II series. With video card, $1,690. Sigma Designs, Inc., 47900 Bayside Pkwy., Fremont, CA 94538. 800-845-8086 or 510-770-0100. (Apr '90) ★ '90 Eddy

Sigma Designs PageView MultiMode ⭐⭐⭐½

This full-page monochrome display screen offers multiple resolutions of 72, 80, and 88 dpi. Performance is good. You can also buy only the monitor and cable for the Mac IIsi and IIci. Comes with tilt/swivel stand and software. Requires Mac SE, Classic, or II series. With video card, $990; monitor only for IIsi and IIci, $695. Sigma Designs, Inc., 47900 Bayside Pkwy., Fremont, CA 94538. 800-845-8086 or 510-770-0100. (Feb '91)

Sigma Designs Power Portrait ⭐⭐⭐½

This integrated SCSI display adapter and full-page monitor works with Outbound notebooks, Pluses, SEs, SE/30s, all Classics, Portables, and PowerBooks at 1-bit pixel depth. Easy installation. Monitor has resolutions of 72, 80, and 88 dpi. Active screen area is 8 x 10.7 inches. Supports virtual memory, 32-bit addressing, and RAM disks. Configured using Monitors control panel. Includes interface cable and tilt/swivel stand. Platinum color, $995; granite, $1,095; antiglare treatment option, $50. Sigma Designs, Inc., 47900 Bayside Pkwy., Fremont, CA 94538. 800-845-8086 or 510-770-0100. (Dec '92)

Sigma Designs SilverView ⭐⭐⭐⭐

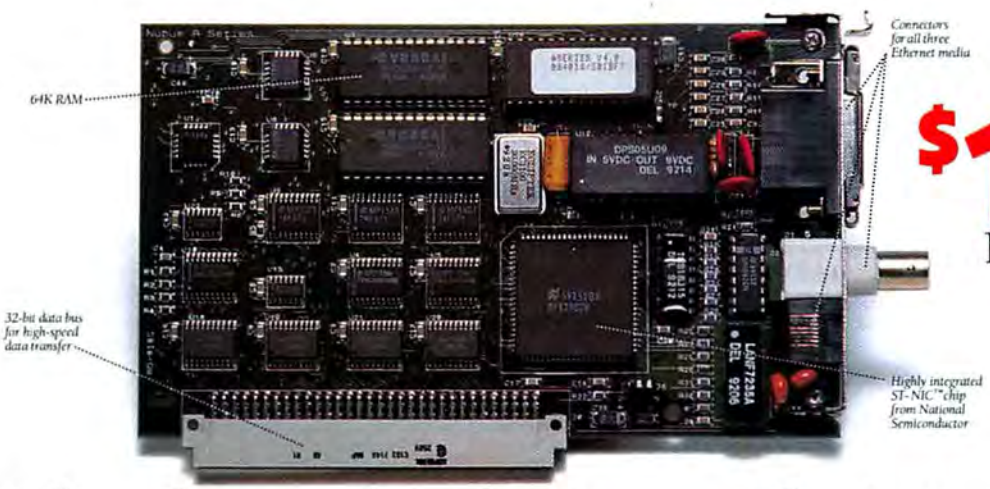
This 21-inch monochrome monitor is bright, with good focus and fair geometry. Minimal screen-nuisance factors.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

EtherLAN™



$139.99
thin or 10BaseT, FPU socket, 16K RAM
EtherLAN™ *LC-T*
Product # 60 3100



$169.99
NuBus with 64K RAM Thick, Thin, and 10BaseT
EtherLAN™ *A1-II*
Product # 60 3600

Make the right choice with 3-in-1 boards

Thick, Thin, *and* 10BaseT– tomorrow's topology needs require flexible solutions.

When you make the decision to invest in Ethernet, invest in the best technology for the job. Our new 3-way EtherLAN boards give you the advantage of instantly changing to the topology of choice– whether it's thick, thin, or 10BaseT.

- **30-Day 'Love It or Return It' Guarantee**
- **FPU sockets for expandability**
- **3-way boards: Thick, Thin, and 10BaseT**
- **Lifetime Product Warranty**
- **Pass-Thru Slot boards for SE/30 and IIsi**

EtherLAN is the smart buyers alternative to expensive Ethernet cards. And this is state-of-the-art Ethernet, with features found only on the best boards. Compare with Asanté and Farallon– we have the best value.

The Best Value

Ethernet Board	EtherLAN	Asanté	Savings
SE/30, IIsi ***	$149.99	$249	$ 99
Mac II (NuBus)***	$149.99	$249	$ 99
Mac II 3-way *	$169.99	$329	$ 159
IIsi Pass Thru**	$189.99	$329	$ 139
LCT/FPU 10BaseT	$209.99	$399	$ 189
LC 2-way, FPU, 64K	$229.99	$479	$ 249
EtherLAN SC (SCSI)	$249.99	$399	$ 149
EtherLAN HUB 8	$249.99	$399	$ 149

* Thick, Thin, & 10BaseT– all on one board
** Pass Thru Slot- allows second PDS board
*** 16K, Thick and Thin OR Thick and 10BaseT

24 Quality Ethernet Solutions to choose from

Focus EtherLAN SC provides Ethernet through your SCSI port. Fully compatible with Thick, Thin, or 10BaseT, the EtherLAN SC is a convenient plug and play solution for all Macs. ***Only $249.99***

Focus EtherLAN 8-Port HUB for 10BaseT with Thin connector, now available. ***Only $249.99***
Stop wasting your time and money with overpriced Ethernet cards– order your EtherLAN today.

800.538.8866

Call toll free to order now

FOCUS enhancements



Call for your FREE Catalog

How to Order: Our Customer Advisors will help you Monday thru Friday 9 to 8, Sat & Sun 11 to 5 Eastern Time. We accept VISA, MasterCard, American Express, Discover, Fortune 500 PO's, Government and University PO's (approved), business and personal checks (with check approval), Cashiers checks, Money Orders, and COD. • Focus Enhancements, Inc. 800 West Cummings Park, Woburn, MA. 01801 • 617-938-8088, fax 938-7741

© 1992 Focus Enhancements, Inc. All rights reserved. Focus, EtherLAN, EtherLAN LC, EtherLAN 1A-II, EtherLAN SC, "The Focus Smart Buyers Guide" are registered trademarks of Focus Enhancements, Inc. All prices and items subject to change and availability.

CIRCLE 125 ON READER SERVICE CARD.

Horizontal-centering control. Good software. Version 1.2 reviewed. Version SilverView Pro shipping. Requires SE, SE/30, Mac II series, or Quadra. Monitor, $1,295; 8-bit card, $545; monochrome card, $365. Sigma Designs, Inc., 47900 Bayside Pkwy., Fremont, CA 94538. 800-845-8086 or 510-770-0100. (Apr '90)

Sony CPD-1304 ★★★★½

This Trinitron-based autosynchronous color monitor has excellent color range. Active screen size is 13 inches. Scan rate ranges from 28 to 50 kHz horizontally and from 50 to 87 kHz vertically. Has silica antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, horizontal and vertical size, and input select. Automatic degaussing. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced and noninterlaced at 60 Hz. Incomplete documentation. $1,000; optional Mac II cable, $20. Sony Computer Peripherals Co., 655 River Oaks Pkwy., San Jose, CA 95134. 800-352-7669 or 408-432-0190. (Aug '92)

Sony RVP-6000Q ★★★★

This enclosed rear-projection display system uses three separate, high-intensity projectors to create an extremely bright RGB image on a flat 60-inch screen. Usable even under normal room lighting. Supports resolutions as high as 1,280 x 1,024 pixels. Picture quality is good. Has slightly less stable image and narrower viewing angle than that provided by most large CRT monitors. Effective viewing range is 10 to 45 feet. Entire enclosure weighs 450 pounds. Requires dealer installation and Mac video cable. $22,000; Mac video cable, $185. Sony Business and Professional Group, 3 Paragon Dr., Montvale, NJ 07645. 800-523-7669 or 201-930-1000. (Dec '92)

SuperMac 19" Dual-Mode Spectrum/8•24 PDQ si ★★★★½

This 8-bit- or 24-bit-color display system includes a PDS video card, a cable, and a 19-inch Sony Trinitron monitor. Has excellent display characteristics, and cable is well shielded. Has resolution of 82 dpi or WYSIWYG 72 dpi. Active screen size is 17.76 inches diagonally. External monitor controls include power switch, brightness/contrast, vertical position, and vertical/horizontal convergence. Degaussing is automatic. Software features include pan, zoom, and on/off acceleration control. Warranty is 3 years for monitor, 5 years for card. Requires Macintosh IIsi. $3,998. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (Feb '92)

SuperMac 19" Platinum Display ★★★★★

This exceptional gray-scale display system has excellent focus, geometry, and lack-of-nuisance ratings. Above-average brightness and sharpness. Color-capable card. Hardware pan and zoom. Virtual desktop. Glare protection. Requires Macintosh II series or higher. Monitor, $1,099; 8-bit card, $399. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (Oct '90)

SuperMac 19" SuperMatch Spectrum/8 LC ★★★★½

This 8-bit-color display system includes a PDS video card, a cable, and a 19-inch Hitachi shadow-mask monitor. Active screen size is 17.76 inches diagonally. Has excellent display characteristics, and cable is well shielded. Resolution is WYSIWYG 72 dpi, and external monitor controls include vertical position/size, horizontal position/size, and degaussing. Good software features, including on/off control of QuickDraw acceleration. Warranty is 3 years for monitor, 5 years for card. Large footprint. Requires Macintosh LC. $2,598. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (Feb '92)

SuperMac 21" SuperMatch Spectrum/8 si ★★★★½

This 8-bit-color display system includes a PDS video card, cable, and a 21-inch Hitachi shadow-mask monitor. Active screen size is 18.72 inches diagonally. Has excellent display characteristics, cable is well shielded, and no PDS adapter is needed. Resolution is nearly WYSIWYG at 77 dpi. External monitor controls include power switch, brightness/contrast, and degaussing. Software features include pan, zoom, and on/off control of acceleration. Large footprint. Warranty is 3 years for monitor, 5 years for card. Requires Macintosh IIsi. $4,248. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (Feb '92)

SuperMac (Hitachi) 19" ★★★★½

This high-quality color display system combines a Hitachi monitor with a Spectrum/24 PDQ 24-bit-video card. It delivers excellent color quality, and the 19-inch-diagonal screen size is large enough for nearly all professional applications. The WYSIWYG display has standard 72-dpi pixel density. Few external controls are provided to manage screen-image characteristics. Requires Mac II series. $4,398. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (May '91)

SuperMac (Hitachi) 21" ★★★★½

This high-quality color display system combines a Hitachi monitor with a Spectrum/24 PDQ 24-bit-video card. It delivers excellent color quality, and the 21-inch-diagonal screen size is large enough for professional applications. This near-WYSIWYG display has 77-dpi pixel density, so screen objects are slightly condensed. Few external controls are provided to manage screen-image characteristics. Requires Macintosh II series. $6,048. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (May '91)

SuperMac (Sony) 19" ★★★★★

This high-quality color display system combines a Sony Trinitron monitor with a fast Spectrum/24 Series III 24-bit video card. It delivers excellent color quality, and the 19-inch-diagonal screen size is large enough for nearly all professional applications. The very sharp WYSIWYG display has standard 72-dpi pixel density. Excellent software and a great value. Requires Macintosh II series. $4,698. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (May '91)

SuperMac Spectrum/24 PDQ Plus ★★★½

Spectrum/24 PDQ Plus is an accelerated 24-bit-color video card with good performance and features. Supports hardware pan and zoom and lets you change resolutions on the fly. No support for 16-bit color. High power consumption. Offers six resolution choices ranging from 512 x 384 up to 1,152 x 870 pixels. Good utility software. Five-year warranty. Requires Macintosh II series or higher. $2,399. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (May '92)

SuperMac Thunder/24 ★★★★

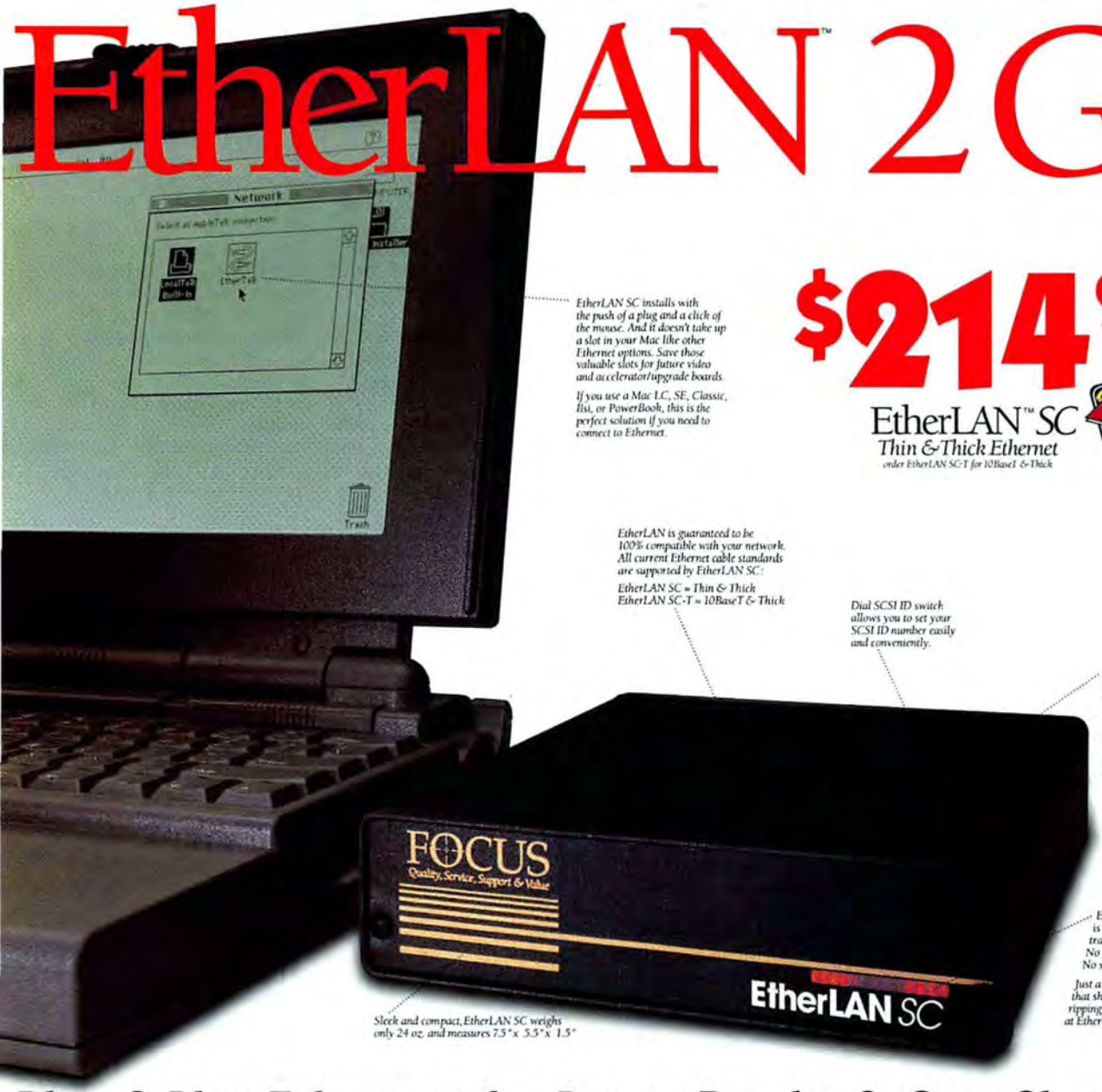
Thunder/24 is a fast 24-bit-color accelerated video card with good software. High power consumption. Supports hardware pan, zoom, and extended desktop. Offers six resolution choices ranging from 512 x 384 up to 1,152 x 870 pixels. No support for 16-bit color. Has four SIMM slots for a maximum 8 MB of GWorld RAM. Five-year warranty. Requires Macintosh II series or higher. $3,499. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (May '92)

Taxan Crystal View ★★★★

This 19-inch monochrome monitor is bright and sharp but has poor subjective focus. Screen color is uneven with a yellowish center. Screen resolution is 72 dpi. Requires Mac SE, SE/30, or II series. $1,695. Taxan America, Inc., 2880 San Tomas Expressway, Ste. 101,

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★

EtherLAN™ 2 Go



EtherLAN SC installs with the push of a plug and a click of the mouse. And it doesn't take up a slot in your Mac like other Ethernet options. Save those valuable slots for future video and accelerator/upgrade boards.

If you use a Mac LC, SE, Classic, IIsi, or PowerBook, this is the perfect solution if you need to connect to Ethernet.

$214.99

EtherLAN™ SC
Thin & Thick Ethernet
order EtherLAN SC-T for 10BaseT & Thick

ORDER NOW 800-538-8866 TOLL FREE

EtherLAN is guaranteed to be 100% compatible with your network. All current Ethernet cable standards are supported by EtherLAN SC:
EtherLAN SC = Thin & Thick
EtherLAN SC-T = 10BaseT & Thick

Dial SCSI ID switch allows you to set your SCSI ID number easily and conveniently.

EtherLAN SC provides true Plug and Play connectivity in minutes.

The ideal solution for any installation that needs maximum flexibility on a limited budget.

EtherLAN SC is completely transparent. No buttons, No switches.

Just a LED display that shows your files ripping in and out at Ethernet speeds.

Sleek and compact, EtherLAN SC weighs only 24 oz. and measures 7.5"x 5.5"x 1.5"

Plug & Play Ethernet for PowerBooks & One Slot Macs



WELCOME TO A BETTER WAY TO PURCHASE MAC ENHANCEMENTS
Save hundreds by buying direct. We've eliminated the middleman, and passed the savings on to you, *Saving you 40% to 70% everyday.*

THE NEW ETHERLAN SC IS THE EASIEST METHOD TO CONNECT YOUR MACINTOSH TO ETHERNET
Plug & Play Ethernet is here – just plug in the SCSI cable, set your SCSI ID number, and install the Focus EtherLAN management software with a quick click of the mouse.

Absolutely The Best Value

Asante EN/SC	$499
Asante EN/SC10T	$399*
EtherLAN SC	$214.99
EtherLAN SC-T	$214.99*

*10BaseT Ethernet using twisted pair cable

24 Quality Ethernet Solutions to Choose from

EVERY ETHERLAN SC HAS A 30-DAY "LOVE IT OR RETURN IT" SATISFACTION WARRANTY PLUS A FULL THREE-YEAR PRODUCT WARRANTY Try EtherLAN SC for 30 days. If for any reason, you're not 100% pleased, return it for a prompt courteous refund. No questions asked. Your satisfaction is our goal.

CALL NOW TO ORDER don't forget to ask for our FREE Product Catalog featuring hundreds of Mac Enhancements.

800.538.8866

"THE FASTEST OF THE SCSI ADAPTORS" - MacUser
We support more Ethernet-to-SCSI connectors on more installed Macs than anyone, Period. And *no one* offers better Product Support & Value.

VISA MasterCard AMERICAN EXPRESS DISCOVER

FOCUS enhancements

How to Order: Our Customer Advisors will help you Monday thru Friday 9 to 8, Sat & Sun 11 to 5 Eastern Time. We accept VISA, MasterCard, American Express, Discover, Fortune 500 PO's, Government and University PO's (approved), business and personal checks (with check approval), Cashiers checks, Money Orders, and COD. • Focus Enhancements, Inc. 800 West Cummings Park, Woburn, MA. 01801 • 617-938-8088, fax 938-7741

© 1992 Focus Enhancements, Inc. All rights reserved. Focus, EtherLAN, EtherLAN LC, EtherLAN IA-II, EtherLAN SC, "The Focus Smart Buyers Guide" are registered trademarks of Focus Enhancements, Inc. All prices and items subject to change and availability.

CIRCLE 126 ON READER SERVICE CARD.

Santa Clara, CA 95051. 408-748-0900. (Apr '90)

Taxan MultiVision 795 ♮♮♮♮½

This Trinitron-based auto-synchronous color monitor is bright and has good color range. Active screen size is 12 inches. Scan rate ranges from 30 to 57 kHz horizontally and from 50 to 100 kHz vertically. Has silica antiglare treatment. External controls include image brightness/contrast, horizontal and vertical position, horizontal and vertical size, and input select. Video-signal compatibility includes Mac II series and LC, plus 1,024 x 768 pixels interlaced at 60 Hz and noninterlaced at 75 Hz and 60 Hz. Incomplete documentation. $1,095. Taxan America, Inc., 2880 San Tomas Expressway, Ste. 101, Santa Clara, CA 95051. 408-748-0900. (Aug '92)

Truevision NuVista+ ♮♮♮♮½

The Truevision NuVista+ is a NuBus card that offers both input and output, using composite, RGB, or S-video NTSC signals. Can output or digitize 32-bit RGB in a resizable window. Saves images in PICT or TGA formats. Allows impressive live-video effects. Good manual and software. Includes cables. Toll-free unlimited technical support. Requires Macintosh II series or higher. $2,995; with 2 MB of RAM, $3,595; with 4 MB of RAM, $4,795. Truevision, 7340 Shadeland Station, Indianapolis, IN 46256. 800-344-8783 or 317-841-0332. (Aug '91)

★ '88 Eddy

Video F/X ♮♮♮♮½

Video F/X is a professional-quality system for frame-accurate analog-video editing. Hardware includes a NuBus card and an external box that controls as many as three video decks. The box contains an audio mixer, a video switcher and encoder, and a time-code generator. Software is easy to use and handles all standard video-editing tasks well. Can combine high-resolution PostScript text and graphics or custom backgrounds with incoming video. Generates edit-decision lists for use with high-end video equipment. Excellent documentation and support. Version 2.1 reviewed. Requires Macintosh II series or higher with 8 MB of RAM, a high-capacity hard drive, two videotape decks with time-based corrector, and a video monitor. $9,995. Digital F/X, Inc., 755 Ravendale Dr., Mountain View, CA 94043. 800-955-8273 or 415-961-2800. (Aug '92)

VideoLogic DVA-4000 ♮♮♮♮½

DVA-4000 is a NuBus card that provides a complete set of audio/video features for multimedia. Excellent image quality. Software is powerful, complete, and easy to use. Provides stereo audio that's controllable through software. Video-in options include composite, RGB, and S-video. Live-video display is 24-bit in a resizable window; 8-bit or 24-bit images can be digitized. Easily integrates with multimedia packages such as HyperCard, Macromedia Director, and Authorware Professional. Good documentation. Requires Macintosh II series or higher. $2,395. VideoLogic, Inc., 245 First St., Cambridge, MA 02142. 617-494-0530. (July '91)

VideoSpigot ♮♮♮♮

VideoSpigot is an affordable hardware/software package for digitizing consumer-level NTSC and PAL video. NuBus card lets you create colorful, home-video-quality QuickTime movies at resolutions as high as 320 x 240 pixels (NTSC). Supports high frame-capture rates but has poor image controls. Easy to use and install. Included ScreenPlay software lets you preview incoming video and then record it to RAM or to disk. Lacks S-video input capability. Sound recording depends on built-in microphone on an LC or IIsi, or on a separate sound digitizer such as Macromedia's MacRecorder. Five-year warranty. Requires LC or Mac II series or higher, 8 MB of RAM, a color display system, and a high-capacity hard drive. VideoSpigot NuBus (includes Premiere), $599; VideoSpigot NuBus for LC, $499. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (Oct '92)

VideoSpigot Pro ♮♮♮♮

VideoSpigot Pro is an affordable hardware/software package for digitizing consumer-level NTSC and PAL video. Drives Mac monitors as large as 21 inches and provides 24-bit color at 640 x 480 pixels. NuBus card lets you create colorful, home-video-quality QuickTime movies at resolutions as high as 320 x 240 pixels (NTSC). Supports high frame-capture rates but has poor image controls. Easy to use and install. Included ScreenPlay software lets you preview incoming video and record it to RAM or to disk. Lacks S-video input capability. Sound recording depends on built-in microphone on an LC or IIsi, or on a separate sound digitizer such as Macromedia's MacRecorder. Five-year warranty. Requires LC or Mac II series or higher, 8 MB of RAM, a color monitor, and a high-capacity hard drive. $1,499 (includes Premiere). SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (Oct '92)

EDUCATION

Aesopolis ♮♮♮♮½

This well-executed collection of Aesop's fables will appeal to children and their parents. Kids will like the wacky Einstein-like host who introduces and explains the fables, and adults will appreciate the stunning illustrations (collected from 19th-century editions of the fables). The fables are read aloud, and a dictionary is included to explain any unfamiliar words in the text. $99. Quantum Leap Technologies, Inc., 1399 S.E. Ninth Ave., Ste. 4, Hialeah, FL 33010. 800-762-2877 or 305-885-9985. (Dec '92)

Alphabet Blocks ♮♮♮♮♮

Alphabet Blocks teaches prereaders the letters and sounds of the alphabet. The on-screen elf's digitized voice is clear and pleasant. Very intuitive. Version 1.0 reviewed. Version 1.10 shipping. Requires Macintosh Plus or later. $59.95. Bright Star Technology, Inc., 325 118th Ave. S.E., Ste. 300, Bellevue, WA 98005. 206-451-3697. (May '88)

Amazing Universe ♮♮♮

Anyone interested in astronomy will enjoy this collection of images of planets, stars, comets, and galaxies culled from photographs taken from observatories and during space missions. Editing software lets you magnify the images and apply filters and colors. The nonintuitive interface and lack of explanation of what you're viewing makes this program most suitable for adults and older teenagers. $79.95. Hopkins Technology, 421 Hazel Lane, Hopkins, MN 55343. 612-931-9376. (Dec '92)

American Discovery ♮♮♮

American Discovery is an interactive United States geography game that teaches states, capitals, and (in a roundabout manner) postal codes. Supports color displays. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later. $49.95. Great Wave Software, 5353 Scotts Valley Dr., Ste. E, Scotts Valley, CA 95066. 408-438-1990. (May '88)

Berlitz Think & Talk ♮♮♮♮

If you've ever considered using your Mac to help you learn a foreign language, the Think & Talk CD-ROM series is a good place to start. Based on the famous Berlitz method, this course will give you an excellent grounding, and you can move on to other HyperGlot language programs. If you have a mike-equipped Mac, you can record your own voice to compare with the pronunciation of native speakers included in this program. Per language, $199. HyperGlot Software, P.O. Box 10746, Knoxville, TN 37939. 615-558-8270 . (Dec '92)

Business Simulator ♮♮♮♮

Business Simulator is a simulation-game business training tool. Make decisions that manage the company through several stages during 25 years. Decisions become tougher over time. Version 1.0 reviewed. Version 2.0 shipping.

MICE RATINGS ♮ ♮½ ♮♮ ♮♮½ ♮♮♮ ♮♮♮½ ♮♮♮♮ ♮♮♮♮½ ♮♮♮♮♮

Requires Macintosh Plus or later and a hard drive. $69.95. Strategic Management Group, Inc. (SMG), 3624 Market St., Philadelphia, PA 19104. 800-445-7089 or 215-387-4000. (Dec '87)

Dietician ⭐⭐⭐½

A good tool for creating or monitoring special diets. Figures out the nutritional value of recipes. Can also show diabetic exchanges. Limited built-in food data, but up to 700 items can be added. Data in manual is fairly old. Version 1.3 shipping. Requires Macintosh 512Ke or later and System 5.0 or later. $94.95. ALSoft, Inc., P.O. Box 927, Spring, TX 77383. 713-353-4090. (Oct '90)

Earthquest ⭐⭐⭐½

This HyperCard stack instructs users about Planet Earth through a series of games, puzzles, and quizzes. Its decidedly environmentalist edge provides lots of practical information on ways to save the planet. Includes HyperCard. Gaming aspects suitable for nine-year-olds, but its information and phraseology are more suitable for teenagers. Recommended with classroom supervision. Needs minor debugging. Version 2.01 reviewed. Requires Mac Plus or later, 2 MB of RAM, System 6.05 or later, and HyperCard 2.0. $59.95. Earthquest, Inc., 125 University Ave., Palo Alto, CA 94301. 415-321-5838. (Dec '91)

French Reading Lab 1: 3 by Maupassant ⭐⭐⭐½

Sick of conjugating verbs and wish you could move on to something a little meatier in your language studies? This series of French short stories is just the thing for intermediate-level language students looking for a challenge. You can click on unfamiliar words to check meanings, and an included audiotape lets you hear the language. $29.95. HyperGlot Software, P.O. Box 10746, Knoxville, TN 37939. 615-558-8270 . (Dec '92)

Fun Physics ⭐⭐⭐⭐

Fun Physics (formerly Interactive Physics I) is one of the best teaching tools — short of a physics laboratory — you can buy. Students set up and run experiments, using simple drawing tools that attach objects with various strings and springs. Results of experiments are animated on-screen. There are limits to the number of masses and connectors, but that doesn't detract much from the overall program. Includes 15 ready-made experiment files that demonstrate possible uses of the program. Excellent manual. Version 1.0 reviewed. Version 1.2 shipping. Requires Macintosh Plus or later and System 6.03 or later; hard drive recommended. $99. Knowledge Revolution, 15 Brush Place, San Francisco, CA 94103. 800-766-6615 or 415-553-8153. (Apr '90) ★ '89 Eddy

Gravitation Ltd. ⭐⭐⭐

Gravitation Ltd. is an educational application that lets you make your own solar system and watch planets coexist or collide. Comes with 21 prefabricated solar systems — easy to design your own. Its black-and-white graphics are crude. Fun to use. Version 1.0 reviewed. Version 4.0 shipping. Shareware fee (Jeff Rommereide), user discretion; available from on-line services such as ZiffNet/Mac. (Oct '90)

Headline Harry and the Great Paper Race ⭐⭐⭐½

Headline Harry is a little like the Carmen Sandiego series, in that you have to solve a case by using your knowledge of history and geography, but it requires a little more effort on the part of the players, so it's more educational. Help Harry figure out what the real facts of a story are in his quest to scoop the rival newspaper on such topics as the civil rights movement of the '60s. $59.95. Davidson & Associates, 19840 Pioneer Ave., Torrance, CA 90503. 310-793-0600. (Dec '92)

Interactive Physics II ⭐⭐⭐⭐½

This powerful 2-D simulation program lets users model mechanical and electrostatic systems based on the laws of physics. Excellent supplement to high-school and college physics courses. Useful visualization and presentation tool for scientists, engineers, and basement mechanics. Interface is inviting and intuitive. Provides toolbox of common mechanical devices. Uses spreadsheet-like interface for equation processing. Calculates motion based on user-defined parameters and displays animated sequences. Exports animations as QuickTime movies. Version 1.0 reviewed. Requires Macintosh II series or higher with a math coprocessor, 4 MB of available RAM, System 6.05 or later, and a hard drive. $399. Knowledge Revolution, 15 Brush Place, San Francisco, CA 94103. 800-766-6615 or 415-553-8153. (Dec '92)

KidsMath ⭐⭐⭐½

KidsMath is a set of eight educational applications for ages 3 to 8. Quality ranges from adequate to superb. Supports color and large monitors. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later. $49.95. Great Wave Software, 5353 Scotts Valley Dr., Ste. E, Scotts Valley, CA 95066. 408-438-1990. (May '90)

KidsTime ⭐⭐⭐½

KidsTime is a package of five quality educational programs for children between the ages of 3 and 7. The programs all have adjustable levels of difficulty, and some use speech. The different programs teach the alphabet, basic music concepts, simple word-processing skills, use of a computer, and connect-the-dots doodling. Supports color. Version 1.0 reviewed. Version 1.3 shipping. Requires Macintosh Plus or later. $49.95. Great Wave Software, 5353 Scotts Valley Dr., Ste. E, Scotts Valley, CA 95066. 408-438-1990. (Oct '86) ★ '86 Eddy

LXR•TEST ⭐⭐⭐⭐

LXR•TEST generates tests from a database of questions. Easy to modify and scramble test questions. Flexible output. Version 2.0 reviewed. Version 4.111 shipping. Requires Macintosh Plus or later; hard drive recommended. $149 direct; professional edition, $499; scoring edition, $799. Logic eXtension Resources, 9651-C Business Center Dr., Rancho Cucamonga, CA 91730. 714-980-0046. (May '88)

MacPhotography Workshop ⭐⭐⭐⭐½

MacPhotography Workshop is a seven-disk program that teaches basic camera and darkroom techniques. Animated simulations and hypertext make learning black-and-white photography easy. Designed for both self-instruction and classroom use. Requires Mac Plus or later and a hard drive. $85; site license, $399. Intellimation Library for the Macintosh, 130 Cremona Drive, P.O. Box 1922 (Dept. GAPI), Santa Barbara, CA 93116. 800-346-8355 or 805-968-2291. (Sept '90)

Mavis Beacon Teaches Typing! ⭐⭐⭐½

Mavis Beacon Teaches Typing! has more features than a Selectric. Lots of diagnostics concerning typos. Incomplete documentation. Version 1.1 reviewed. Version 1.3 shipping. Requires Macintosh Plus or later. $49.95. Software Toolworks, 60 Leveroni Ct., Novato, CA 94949. 800-234-3088 or 415-883-3000. (Nov '88)

Number Munchers ⭐⭐⭐⭐½

Number Munchers is an educational arcade game aimed at grades 3 to 12. Teaches variety of skills for multiplication, factors, primes, equalities and inequalities. Easy levels are a snap, and the hardest levels are thoroughly challenging. Adaptable to classroom. Version 1.0 reviewed. Version 1.2 shipping. Requires Macintosh Plus or later with System 6.03 or later and a hard drive; color display system recommended. $49.95. MECC, 6160 Summit Dr. North, Minneapolis, MN 55430. 800-685-6322 or 612-569-1500. (Oct '90)

NumberMaze ⭐⭐⭐⭐

NumberMaze makes practicing basic math skills a game. Children ages 5 through 12 can work their way through various mazes by solving numerical and word problems in counting, addition, subtraction, multiplication, and division. Can select problem types and difficulty. Games can be customized with familiar

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

QuarkXPress 3.2 $499

Ask about our wide selection of QuarkXTensions

New! Quark Passport 3.1 $1499

International publishing for QuarkXPress users

SyQuest 44MB.....$62
SyQuest 88MB.....$99
3.5" 128MB Carts ...$59
3.5" 256MB Carts ...$99



The DGR 128REM:
MacUser's Price/Performance Leader
July 1992 Optical Drive Review

FWB **FWB's Hard Disk ToolKit Personal Edition included with DGR 128REM & DGR 128REM Turbo**

NEC

NEC 2MB $125
NEC 4MB $225
Fax Kit $529

Silentwriter Model 95 $1369

300 DPI Postscript Level 2 • Auto PC–Mac Switching
6 pages per minute • 35 Resident Fonts

DGR 128REM $1199

128MB optical drive. 42ms access. 512Kb transfer

DGR 128REM Turbo $1299

128MB portable optical drive. 34ms access. 768Kb Transfer
3.5" 128MB cartridges only $59

UMAX

Authorized Reseller



All UMAX Scanners Include Adobe Photoshop 2.01 Software — MacUser ★★★★½

UMAX 630 – 600DPI 24-bit color$1079
UMAX 840 – 800DPI 24-bit color$1599
UMAX 1200 – 1200DPI 24-bit color$2975
UMAX 1200 w/Transparency Adapter.....$3625
Transparency Adapter for any Umax allows scanning of transparencies & slides$679

UMAX 630 Scanner $1079
600DPI 24-bit Color Scanner

E-MACHINES

Authorized Reseller



ColorPage T-16II Trinitron Display.....$1299
T-19II Trinitron Display$2395
Futura SX 24-bit 16" video card.....$499
Futura MX 24-bit 19" video card$879
Colorlink SX/T video & ethernet.....$649
DoubleColor LX 8-bit video card.....$619
QuickView Video Quicktime card.....$399
View Quick Studio$1399

NEW! PowerLink Presentor $469
NEW! PowerLink DeskNet $659

PLI

Authorized Reseller



PLI Infinity 45 SyQuest$519
PLI Infinity 88 SyQuest$649
PLI 3.5" 128MB Optical.....$1549
PLI 5.25" 1.0GB Optical$3299
PLI Sony 3.5" 21MB Floptical$339
PLI CD-ROM.....$559
PLI 4.0GB DAT Backup Drive.....$1399
PLI Quick SCSI with Cable.....$319

PLI 3.5" 128MB Optical $1549
Removable media • 10 year data life

newgen

Authorized Reseller



High Performance 300 & 600DPI Printers
PS/300p – 300DPI/4ppm/2MB$1225
PS/400p – 400DPI/4ppm/4MB$1675
PS/440 – 400x400DPI B series.....$3275
PS/660 – 600x600DPI B series.....$3639
PS/840 – 800DPI/8ppm/6MB$3025
PS/880 – 800DPI/8ppm/12MB$3685
PS/600T / PS/1200T tabloid printers.....Call

NewGen PS/630 $2359
600DPI, 8ppm, 4MB RAM, RISC processor

SYSTEMS



Call for Latest Prices
All New Apple CPU's

SYSTEM LEASING NOW AVAILABLE

PowerBook 145 4/40	1999
PowerBook 145 4/80	2349
PowerBook 160 4/40	2270
PowerBook 160 4/120	2945
PowerBook 180 4/80	3840
PowerBook 180 4/120	4179
PowerBook Duo 210 4/80	2105
PowerBook Duo 230 4/80	2439
PowerBook Duo 230 4/120	2775
Macintosh Classic II 4/40	990
Macintosh Classic II 4/80	1119
Macintosh LCII 4/40	1159
Macintosh LCII 4/80	1249
Macintosh IIsi 3/40	1515
Macintosh IIci 5/0	2249
Macintosh Quadra 700/950	3499/5475
Macintosh IIvx 4/80	2619
Macintosh IIvx 5/80 CD	2859

Now Included With Macintosh Systems – FWB Hard Disk ToolKit Personal Ed!

NETWORKING

Asanté 10base-T Hub	249
Asanté MacCon +Ile 16/64k	169/225
Asanté MacCon +301 16/64k	179/349
DaynaPort e/tl Mac II Ethernet	169
Dayna EtherPrint /EtherPrint Plus	329/599
Farallon Star Controller/EN	799/975
PhoneNet 10 Pack	188
QuickMail 10 User V.2.5	359
Shiva Ethergate/FastPath 5	1262/1850
Shiva Netbridge/Telebridge	399

QMS Hammerhead

- 11 x 17 Tabloid/A3 Size
- 25MHz Intel RISC Processor
- 12MB RAM upgradeable to 32MB
- 600DPI, 8ppm Printer Engine
- Complete for only.....$4025



Timbuktu Remote Access Pak	732

INPUT/OUTPUT

Apple Extended Keyboard	170
EMAC Silhouette Trackball	75
Kensington Turbo Mouse 4.0	101
Keytronic MacPro Plus Keyboard	115
Mac Recorder Digitizer Only	89

MODEMS & FAXES

Global Village Teleport Desktop Gold	424
Global Village Powerport Gold	499
LogiCode QuikTel Xeba V.42bis	374
Practical Peripherals PM14400 FXSA	405
Prometheus 96/96 Send/Receive	599
Prometheus Ultima Home Office	459
PSI COMStation Five	479
PSI PowerModem 24/96	149
Supra V.32bis Mac Package	319
Supra V.32 Mac Package	269
ZOOM 24/96 Send/Receive Fax	119

PRINTERS

Apple LaserWriter IIf 20MHz 030	2199
Apple LaserWriter IIg 25MHz 030	2775
Apple StyleWriter	339
Apple Personal LaserWriter NTR	1675
GCC PLP II/PLP IIs	799/1099
GCC BLP Elite 4ppm	1179
GCC BLP II/BLP IIs	1525/1699
Generations Systems Printers	Call
Hewlett Packard LaserJet 4M	Call
Hewlett Packard 300XL	2325
Hewlett Packard DeskWriter	375
Hewlett Packard DeskWriter C	615
LaserMaster High-Res Printers	Call
QMS PS-410/860	1475/4025
Seiko ColorPoint PS – A Size	3575

Trinitron Displays



Sony 1604 –16" Trinitron$1029
Sony 1304 –14" Trinitron.....$599

Tektronix Color Quick InkJet	1651
TI microLaser PS XL 17/35	1175/1319
TI microLaser Turbo/TurboXL	1474/3129

VIDEO SOLUTIONS

Apple 12"/13" HighRes RGB	399/469
Apple 16"/21" Color RGB	1199/3449
E-Machines T-16II	1299
E-Machines Futura SX	499
E-Machines, All Models	Call
Envisio PowerBook Video Card 4MB	975
Ikegami CT-20" Trinitron	1795
Mass Micro Quick Image 24	299
NEC MultiSync 3FGx/4FG	629/755
NEC MultiSync 5FG/6FG	1349/2375
Radius Pivot Mono/Color	679/1259
Seiko CM-1445	539
Sony 1304 /1604	599/1029

ACCELERATORS & CACHE II

AE QuickSilver IIsi /IIsi w/FPU	185/245
DGR Tech Max LC Expansion	349
Radius Rocket 040 25i	1195
SIMMs: all types – Best Prices	Call
Motorola PMMU 68852	39
Newer Technologies Accelerators	Call

BOTTOM LINE 24-HOUR INTERNATIONAL SALES FAX (512) 476-6399



Bottom Line Distribution is committed to the needs of the international Macintosh user and reseller. We offer discounted rates with DHL, UPS International, or Federal Express. Delivery times to most countries is 2 to 3 days. We stock 220v versions of most hardware. Dealer inquiries are welcome. Language interpreters are available. Se hace pedidos internacional. Εξυπηρετουμε διεθνης παραγγελιες. Nous acceptons des commandes internationales. Internationale Händlerkonditionen.

日本語での国際取引も扱っております。



DHL FEDERAL EXPRESS

1219 West Sixth, Austin, Texas, USA 78703

WACOM Pressure-Sensitive Tablets

6x9 Standard$449
12x12 Standard.....$649
12x12 Electrostatic ...$699
12x18 Standard.....$959
12x18 Electrostatic.....$1010
18x25 Standard.....$2525

Painter $199
(with purchase of Wacom Tablet)
Wacom compatible MacUser Eddy
Award Winner from Fractal Design



MICROTEK NEW SCANNERS!

40% faster scanning than 600ZS

ScanMaker II $875
1200 DPI 24-bit Color Scanner with Photoshop LE

ScanMaker IIxe $1169
1200 DPI 24-bit Color Scanner with Full Photoshop 2.01 & ScanMatch Calibration Software

ScanMaker 1850 $1399
1850 DPI Color Slide Scanner with Photoshop



TI MicroLaser Plus PS/17 $1175
TI MicroLaser Plus PS/35 $1319
9ppm printer engine • True Adobe Postscript Language
Appletalk interface & 1.5MB RAM included on all models
1MB TI Upgrade $39 • Replacement Toner $42

Turbo MicroLaser PS/35 $1474
RISC Processor • Postscript Level 2 • Appletalk Interface
16ppm Turbo microLaser PS/35 XL $3129
4MB Turbo microLaser RAM $399

SUPERMAC
Authorized Reseller



ThunderStorm /ThunderStormPro....$809/$2789
Spectrum 8 * 24 PDQ.....$799
Spectrum /8 IIsi & LC.....$478
Thunder 8/24 Video Cards.....Call
SuperMatch 17" Multimode/Trinitron ..$1125/$1049
SuperMatch 21" Platinum Display.....$979
20"/20T Multimode Trinitron.....$1499/$2449
SuperMatch 21" Dual Page.....$2775

Video Spigot starting at $379
Thunder Cards – Call!

RasterOps
Authorized Reseller



CorrectPrint 300DPI Dye-Sub Color.....$6899
8/24XLi Accelerated Video Card.....$899/$1699
ColorBoard 264 SE/30.....$685
Video Expander (NTSC/PAL).....$449
364 Board Frame Grabber 24-bit 13/14" ...$675
20" Multi-Scan Trinitron.....$2149
20" Multimode Hitachi.....$1325
21" Color Display.....$2569

Paintboard Li $789
24-bit Accelerated Video Card

radius
Authorized Reseller



Rocket 040 25i/25/33.....$1195/$1599/$1985
VideoVision 24-bit Video.....$1899
Precision Color Interface 8xj/24x....$475/$1675
Precision Color 24xp /24xk.....$479/$789
NEW! Rocket Share.....$415
Mono Two Page Display 19"/21".....$885/$1125
Precision Color 19"/20".....$2025/$2649
Power View.....$499

Precision Color Pivot $925
NEW! Portrait & Landscape Display

DAYSTAR DIGITAL
Authorized Reseller



Accelerators for LC, SE/30, II, IIsi, IIcx, IIci
All Cards Include Free CPU Slot Adapter!
33MHz PowerCache.....$549
33MHz PowerCache with 68882 FPU.....$679
40MHz PowerCache.....$745
40MHz PowerCache with 68882 FPU.....$905
50MHz PowerCache.....$1075
FastCache IIsi/IIci.....$265/$195

Daystar 50MHz PowerCache with 68882 FPU $1249

SCANNERS

HP ScanJet IIc	1299
Microtek 1850 Slidescanner	1399
Sharp JX320 w/Interface	999
Sharp JX450 w/Interface	4159
Tamarack 8000C w/PhotoShop	1499
Umax 630 w/Photoshop	1079
Umax 1200 w/Photoshop	2975

DRIVES & TAPES

Internal or External Drive Kit	29/99
Applied Engineering 1.44 Drive	209
Applied Engineering Plus Drive	283
Bernoulli 90MB w/ Interface	539
Fujitsu 425MB/520MB	999/1099
PLI Super Floppy/Turbo Floppy	399/287
PLI Quick SCSI with Cable	319
Quantum 105MB LPS	325
Quantum ProDrive 240MB	599
Quantum 425MB	949
Toshiba 830 12.5 ms	1245
All Seagate Drives	Call

CD ROM

Chinon CD-ROM	525
NEC CDR-37	406
NEC CDR-74	849
PLI CD ROM	559
Toshiba CD-ROM XM 3201A	685
Microsoft Office - CD ROM	574
Type Gallery PS	229
NEC Clip Art 3-D	221

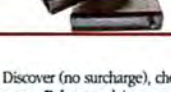
SOFTWARE

Act! Contact Manager	232
Adobe Illustrator 3.2 w/ATM	335
Adobe PhotoShop 2.0.1	499
Adobe Type Align	62

Supra Fax Modems

Supra V.32 Fax Mac Package$279
Supra V.32bis Fax Mac Package $319
Supra V.32 Fax Stand Alone$225
Supra V.32bis Fax Stand Alone ..$285

Mac packages include cable and software. Stand alone units are packaged without cable & software.



Adobe Type Reunion/Streamline2	36/115
AfterDark & More After Dark Bundle	37
Aldus Freehand 3.1	369
Aldus PageMaker 4.2A	475
Aldus Superpaint 3.0	129
Aldus Gallery Effects	129
Aldus Persuasion 2.1	299
At Once! 1.2	177
AutoDoubler	52
Canvas 3.0	239
Claris Works	184
Color Encore	249
Connectix PowerBook Utilities	46
Disk Doubler 3.7	39
EFI Cachet	459
Farallon Media Tracks	171
Far Side Calendar v.2.0	46
Fastback Plus 2.6	115
FileMaker Pro v.2.0	244
FilmMaker	455
Fontographer 3.5	249
FontMonger	65
Foxbase +Mac 2.1	265
Fractal Design Painter	229
FrameMaker	549
Mac Academy Video Training Tapes	36
MacDraw Pro	249
MacProject II 2.5	329
Macromind Director 3.1	849
Macromind MediaMaker	449
Managing Your Money 4.0	92
MasterTracks Pro	297
MicroPhone II 4.0	195
Microsoft Excel 4.0	299
Microsoft Word 5.0	279
Microsoft Office 2.5	489
MS Project	429

JetInc. Inkjet Refill

Black Twin Pack$15.99
Refill unit for HP DeskWriter or Apple StyleWriter inkjet printers

Colors Available in Red, Blue & Green



MS Works	159
MiniCAD v.4.0	469
More 3.1	249
Norton Utilities Mac 2.0	88
OmniPage 3.0 /OmniPage Pro	449/599
Passport Encore	335
Passport Midi Interface	63
PixelPaint Professional 2.0	385
Pixar Renderman	559
Quark XPress 3.2	499
Quick Keys II V.2.12	87
Quicken 3.0	38
Retrospect 1.3	131
Snooper	99
Snooper with NuBus	139
Soft PC – All Versions	Call
Stratavision 3D 2.5	549
SUM II	87
Swivel 3D Pro v.2.0	439
Think C 5.0	189
Think Pascal 4.0	159
Typestyler 2.0	122
White Knight	75
WordPerfect 2.03	265
Write Now 3.0	111

HOW TO ORDER **Payment:** Visa, Mastercard, Discover (no surcharge), checks, and COD's. $6,000 maximum on COD's **Tax:** Texas residents add 8% sales tax. **Prices** and items subject to change and availability. **International:** 5% surcharge on international orders. **Mail In:** Orders accepted with a $10 surcharge. **Terms:** You are not charged until your order is shipped. Phone charges cannot be refunded. **Shipping:** minimum $5-UPS Ground, Blue, Red, Federal Express. ***Returns** must be in original condition and package and require an RMA#. Seal must not be opened on software. Returns may be subject to a restocking fee. Ask for details when ordering. Bottom Line Distribution cannot be responsible for errors in typography or photography.

VISA MasterCard DISCOVER FEDERAL EXPRESS

BOTTOM LINE DISTRIBUTION

Fax: 1-900-420-8770 $10 PER FAX
1219 West Sixth • Austin, Texas 78703

1-900-420-3636
$2 PER MINUTE

names and additional levels. Based on five major math-textbook series for grades 1 through 6. Version 1.0 reviewed. Version 1.2 shipping. Requires Macintosh Plus or later. $69.95. Great Wave Software, 5353 Scotts Valley Dr., Ste. E, Scotts Valley, CA 95066. 408-438-1990. (Dec '89) ★ '88 Eddy

Nuts & HyperBolts ⭐⭐⭐½

Nuts & HyperBolts is a series of HyperCard stacks for improving your grammar. Works with the mouse only. No keyboard shortcuts. Version 2.0 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later and HyperCard 2.1. $189.95 for five-disk set; volume prices available. Sterling Swift Software, 1104 Kinney Ave., Austin, TX 78704. 512-441-8556. (Aug '90)

Physics ⭐⭐⭐⭐

Physics is a capable, intelligent, well-designed study aid. Covers topics from vectors to thermodynamics to the nature of light. Animated experiments let you try out concepts. Version 1.0 reviewed. Version 1.3 shipping. Requires Macintosh Plus or later. $89.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Jan '88)

Playroom, The ⭐⭐⭐⭐½

The Playroom is a highly entertaining and educational program that teaches basic concepts, such as spelling, telling time, and counting, with style. It's centered around a child-sized room furnished with a multitude of objects that spring to life with just a click. Six of the room's objects lead into high-interest learning activities for the three-to-six-year-old set. Version 1.0 reviewed. Version 2.01 shipping. Requires Macintosh Plus or later with 2 MB of RAM. $49.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Sept '90)

Talking Reader Rabbit ⭐⭐⭐⭐

Talking Reader Rabbit teaches four-to-eight-year-olds how to read with four elegant games that build on one another. Supports color. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh 512Ke or later. $69.95. The Learning Co., 6493 Kaiser Dr., Fremont, CA 94555. 800-852-2255 or 510-713-0230. (June '88)

Transparent Language ⭐⭐⭐⭐½

This program should be celebrated by polyglot wannabes everywhere. Offers stories and poems in foreign languages, with text linked to detailed comments, word and phrase meanings, specific notes, and sentence or clause meanings. Lets you read and explore at your own speed. Bookmark feature saves your place for later reference. Includes user guide and tape cassette. Perfect for PowerBooks. Requires Mac Plus or later, System 6.03 or later, and a hard drive. French, German, or Spanish, $139 each; Latin, $129; other languages available. Transparent Language, Inc., 9 Ash St., P.O. Box 575, Hollis, NH 03049. 800-752-1767 or 603-465-2230. (Nov '92)

Type! ⭐⭐⭐⭐

Type! is a typing tutorial that is both practical and flashy. Users can interrupt and move easily among functions. Use of the Return key and space bar are assumed but never explained. Version 1.0 reviewed. Requires Macintosh Plus or later. $29.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Nov '88)

Typing Instructor Encore ⭐⭐⭐½

Encore is a Mac typing tutorial that — unlike many others on the market — makes good use of your computer's abilities instead of simply imitating a typewriter. Although the program is easy to control and offers good performance, it has some strange bugs. Version 1.0 reviewed. Version 2.0 shipping. Requires Mac Plus or later. $29.95. Individual Software, Inc., 5870 Stoneridge Dr., Ste. 1, Pleasanton, CA 94588. 800-331-3313 or 510-734-6767. (Nov '88)

Typing Tutor IV+ ⭐⭐⭐

Typing Tutor IV+ consistently tests your skill in using all keys, including seldom-used ones. The user's attention span wanes, because the testing material is unimaginative. Version IV+ reviewed. Version 5+ shipping. Requires Macintosh Plus or later. $49.95. QUE Software, 11711 N. College Ave., Carmel, IN 46032. 800-992-0244 or 317-573-2500. (Nov '88)

Where in America's Past Is Carmen Sandiego? ⭐⭐⭐½

Another in the popular Carmen Sandiego series, this package requires knowledge of American history over the past 200 years. Your goal is to solve the crimes committed by Carmen and her vile henchmen. Your kids will learn a little history and geography from this series and will quickly become comfortable using a Mac. $59.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Dec '92)

Where in the World Is Carmen Sandiego? (Deluxe Edition) ⭐⭐⭐⭐½

With this latest, largest, and glitziest of the Carmen series, the user still has the same mission: to track down Carmen and her gang, who are stealing the world's treasures. But Carmen has some clever new recruits, and the search expands to 45 countries and more than 2,500 clues. Requires 4 MB available RAM, a color display system, and a hard drive. $79.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Dec '92)

Where in Time Is Carmen Sandiego? ⭐⭐⭐⭐½

Where in Time Is Carmen Sandiego? is the fourth in the popular Carmen Sandiego series. The previous releases use intriguing stories and characters to teach geography to young Mac users, but this package adds the element of time travel (sounds better than "history" and is much more fun). The story revolves around a time machine that Carmen and her gang are using to steal treasures from the past. The Acme Detective Agency has issued you a Chronoskimmer time-travel device, but only your ability to learn geographic clues can save the day! Version 1.0 reviewed. Version 1.2 shipping. Requires Macintosh Plus or later and a hard drive. $49.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Apr '91)

Zoo Friends ⭐⭐⭐⭐

Zoo Friends is a learning, exploring experience for children in grades 2 through 4. Contains five animal exhibits and a Learning Center. Requires HyperCard 1.2.2 or later. Shareware, $9. David J. Combs, 1220 Sagemont Place, Alta Dena, CA 91001. 818-791-4504 or 213-744-7547. (Dec '89)

ENTERTAINMENT

3 in Three ⭐⭐⭐⭐⭐

This popular game from the fevered brain of Cliff Johnson is an endlessly fascinating, frustrating, fun-filled collection of 80 animated puzzles. Appeals equally to smart kids of all ages. Nutty plot requires saving hapless number 3 after she falls off a spreadsheet into the hostile Land of Letters. Supports color or black-and-white Macs. Version 1.2 reviewed. Requires Macintosh Plus or later. $49.95. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (Dec '92) ★ '91 Eddy

4-D Boxing ⭐⭐⭐⭐

Step into the ring, and make your bid for the world boxing title. Watch the action from one of nine camera angles as boxers jab, dodge, taunt each other, and deliver the knockout blow. With colorful 3-D polygonal graphics and modern animation techniques, the boxers move in fluid, exciting, humanlike fashion. $49.95. Electronic Arts, 1450 Fashion Island Blvd., San Mateo, CA 94404. 800-245-4525 or 415-571-7171. (Dec '92)

A Silly Noisy House ⭐⭐⭐⭐½

If you've got the hardware to

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

run this imaginative CD-ROM, your kids will love its clever animations, delightful sounds, and familiar songs. Interface responds quickly and logically to mouse clicks, letting the compulsively curious explore every fun-filled object in every room in a big make-believe house. Perfect for three-to-eight-year-olds. Requires a color-capable Mac with 2 MB of RAM, a hard drive, a CD-ROM drive, and external speakers or headphones. $59.95. The Voyager Company, 1351 Pacific Coast Hwy., Santa Monica, CA 90401. 800-446-2001 or 310-451-1383. (Sept '92)

Ali Baa Baa and the Forty Winks ⭐⭐⭐⭐

Ali Baa Baa and the Forty Winks is an interactive bedtime adventure in which you fly away on a magic pillow to the dark, menacing Quiltcombs to encounter dust-bunny villains. Nice illustrations. Version 1.0 shipping. Requires HyperCard 1.2 or later. $22. Radical Sheep Productions, Inc., 62 MacDonell Ave., Toronto, Ontario M6R 2A2 Canada. 416-531-7774. (Dec '89)

Apache Strike ⭐⭐

Apache Strike would have been an excellent arcade game in the late '70s, but now it's passé. Navigate a helicopter to destroy ever-increasing numbers of enemy aircraft and tanks. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later. $49.95. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (July '88)

Aqua Blooper Piper ⭐⭐⭐⭐

Aqua Blooper Piper tests your plumbing skills when confronted with a customer's broken shower pipe. A fast-moving conveyor belt delivers an assortment of straight, curved, and even twisted pipe sections that you must connect without fumbling. True to the plumbing profession, you are rewarded not for the shortest run of pipe, but for installing as much pipe as possible — without leaks. Hopelessly addicting, with increasing levels of complexity. Luckily, there's a "boss key" that hides the game temporarily under a fake system-bomb dialog box. Version 1.1 reviewed. Requires Macintosh Plus or later with System 6.03 or later. $49.95. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (Apr '92)

Armor Alley ⭐⭐⭐⭐

More than an exercise in blowing up tanks, helicopters, and personnel, Armor Alley requires a solid understanding of military strategy, planning, and the value of human life. You are rewarded for saving lives rather than for ending them needlessly. The game offers ten levels of difficulty and lets you play against the computer or via modem against a remote Mac or PC. There's also a multiplayer mode for AppleTalk networks (each player must have a copy of the game). Armor Alley gives your brain a workout instead of letting you rely merely on hand/eye coordination. Version 1.0 reviewed. Version 1.1 shipping. Requires Mac Plus or later and System 6.03 or later. $49.95. Three-Sixty Pacific, 2105 S. Bascom Ave., Ste. 380, Campbell, CA 95008. 409-776-2187 or 408-879-9144. (Feb '91)

Balance of the Planet ⭐⭐⭐⭐

Balance of the Planet is similar to the classic game Balance of Power but with the object of securing global environmental survival. It's difficult to win, but eventually you should be able to get positive scores, and your awareness of environmental issues will be greatly enhanced. Players can set the basic bias of the game, ranging from pro-nuclear industrialist to extreme "green." Version 1.0 reviewed. $24.95. Chris Crawford (developer), 5251 Sierra Rd., San Jose, CA 95132. 408-926-5388. (Aug '90)

Baseball's Greatest Hits ⭐⭐⭐⭐½

More than just a collection of statistics, this imaginative CD-ROM brings baseball's history alive with sound clips (hear Carl Hubbell reminisce about how the screwball got its name), QuickTime movies, and commentaries by Mel Allen and Red Smith. There's even a game that tests your knowledge of baseball trivia. Requires a color-capable Mac with 2 MB of RAM, a hard drive, a CD-ROM drive, and external speakers or headphones. $79.95. The Voyager Company, 1351 Pacific Coast Hwy., Santa Monica, CA 90401. 800-446-2001 or 310-451-1383. (Dec '92)

Battle Chess CD-ROM Enhanced ⭐⭐⭐½

The power of 3-D animation and fantasy meet in this imaginative version of an old classic. Watch as pieces march on the checkered battleground and actually engage in hand-to-hand combat. Although the use of sound is deficient, the lively and comical animation sequences inject personality into the playing pieces. The game has ten levels of play, and it lets you play long-distance games via modem. $79.95. Interplay Productions, 17922 Fitch Ave., Irvine, CA 92714. 714-553-6655. (Dec '92)

Beyond Dark Castle ⭐⭐⭐½

Beyond Dark Castle brings back Prince Duncan in an encore performance to run, jump, and fight his way to victory. More challenging than the popular original, but it's really just more of the same. Version 1.0 reviewed. Requires Macintosh Plus or later. $49.95. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Aug '88)

Bridge ⭐⭐

Bridge wasn't originally designed for the Mac. Nonstandard Mac interface. Computer opponents in this card game are poor. Latest version supports color. Version 3.0 reviewed. Version 6.0 shipping. Requires Mac Plus or later. $39.95. Artworx Software, 1844 Penfield Rd., Penfield, NY 14526. 800-828-6573 or 716-385-6120. (Oct '90)

Chessmaster 2000 ⭐⭐⭐⭐½

Chessmaster 2000 is a challenging chess program that can appeal to novices as well as experts. You can view the board from 2-D or 3-D perspectives and also turn it for a better look. Play is smooth and easy, and the program responds by voice. You may get tired of hearing "Gotcha," though. Version 1.0 reviewed. Version 1.02 (2100) shipping. Requires Macintosh Plus or later and a hard drive. $49.95. Software Toolworks, 60 Leveroni Ct., Novato, CA 94949. 800-234-3088 or 415-883-3000. (July '87)

Chuck Yeager's Advanced Flight Trainer ⭐⭐

Chuck Yeager's Advanced Flight Trainer doesn't quite have the right stuff to hold interest for long. Simplistic controls. Lacks features found in versions for other computer platforms. Version 1.0 reviewed. Requires Macintosh Plus or later. $49.95. Electronic Arts, 1450 Fashion Island Blvd., San Mateo, CA 94404. 800-245-4525 or 415-571-7171. (Nov '88)

Creepy Castle ⭐⭐⭐⭐

Journey to Transylvania, where your character's girlfriend is held captive by an evil doctor in his mysterious castle. First you must travel to the castle through woods and graveyards where ghouls and werewolves lurk. Then vampires stalk you once you're in the castle, and you still have to make it through the dungeons and past the doctor! $49.95. Reactor, Inc., 445 W. Erie Ave., Chicago, IL 60610. 312-573-0800. (Dec '92)

Crystal Quest ⭐⭐⭐⭐½

Crystal Quest combines all the good elements of nearly every video game ever made. Move a piece around to gobble up points and crystals. Shoot the nasties, and get through the goal before they get you. Excellent sound effects. Supports color. Includes Critter Editor to customize the opposition. Version 2.2X shipping. Requires Macintosh Plus or later with System 6.03 or later. $49.95. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (Apr '88) ★ '88 Eddy

Dark Castle ⭐⭐⭐⭐

Dark Castle is an outstanding achievement in action games, integrating sound with superb animation and graphics. You

MAGIC HARD WORKING TOOLS FOR YOUR MACINTOSH

MAGIC HARD DRIVES

MACPRODUCTS HAS BEEN CONTINUOUSLY SHIPPING MACINTOSH DRIVES LONGER THAN ANY OTHER COMPANY!



MAGIC DRIVE KITS:

Economy Internal Kit $29

FWB ToolKit Internal Kit $49

External Kit $99

ALL MAGIC DRIVES INCLUDE A 1, 2, 3, OR 5 YEAR WARRANTY & THE MAGIC 30-DAY MONEY-BACK GUARANTEE.

ALL MAGIC EXTERNAL DRIVES INCLUDE CASE WITH 40 WATT POWER SUPPLY, CABLES, DRIVER SOFTWARE AND FWB HARD DISK TOOLKIT-PE.

FWB

MAGIC 45R SYQUEST REMOVABLE

"THE MAGIC 45R IS ONE OF BEST SYQUEST DRIVES AVAILABLE, OFFERING HIGH SPEED AND HIGH QUALITY" –MACUSER MAGAZINE JULY '90

MAGIC 128REM 3.5" OPTICAL

"THE BEST DESIGN & CONSTRUCTION FOR THE MONEY" –MACUSER MAGAZINE, JULY 1992

MACWORLD MW 'EDITORS' CHOICE

WINNER OF THE 1992 MACWORLD MAGAZINE EDITOR'S CHOICE AWARD! – NOVEMBER 1992



MAGIC HARD DRIVES

40MB Hard Drive*	$175
52MB Quantum LP**	$219
105/120MB Quantum LP**	$329/$359
Go 120MB Quantum**	$549
240/425MB Quantum**	$599/$999
425/520MB Fujitsu*	$1049/$1149
830MB Toshiba†	$1299
Magic 1.2GB Seagate††	$1999
Magic 1.5GB Micropolis††	$2099
Magic 2.1GB Seagate††	$2799

MAGIC 256/128 OPTICAL

3.5" Optical Disk Included With All Magic Optical Drives

Magic 256MB REM MOST Optical*	$1699
Magic 128MB Turbo Epson Optical*	$1299
Magic 128MB REM MOST Optical*	$1199
Magic 256/128MB 3.5" Cartridges	$99/$59

MAGIC 45R & 88R

Magic 45R/88R SyQuest Drive**	$449/$499
SyQuest 45 & 88 Cartridges	$69/$119

MAGIC TAPE

Tape Included With All Magic Tape Backup Drives

Magic 150/250MB Tape Backup*	$599
Magic 525/600MB Tape Backup*	$999
Magic 2.0/10GB DAT Backup*	$1499/$1299
Magic 2.3/5.0GB 8mm Backup*	$2895/$3799

MAGIC CD-ROM

Magic Toshiba CD-ROM (XM3301)	$549
Magic NEC CD-ROM (CDR74)	$699

WARRANTIES:
* 1 YEAR
** 2 YEAR
† 3 YEAR
†† 5 YEAR

MAGIC HARD WORKING TOOLS FOR YOUR MACINT



MAGIC MEMORY

Each Magic Memory Upgrade is backed by the Magic Lifetime Guarantee. Magic SIMMs are made of the highest quality components and designed specifically for your hardware.

1MB SIMMs $29
4MB SIMMs $129

A COMPLETE LINE OF MEMORY UPGRADES FOR MACINTOSH COMPUTERS, PRINTERS & ACCELERATORS

MAGIC COMMUNICATIONS

MAGIC FAXMODEMS

MAGIC AFX & PKT FAXMODEMS
2400bps modem. 9600/4800bps, class 1, Group 2 & 3 fax, software.....$89, pocket version $119

MAGIC AFX-24/96 POWERBOOK FAXMODEM
2400bps modem. 9600bps send & receive, mounts internally in any Macintosh PowerBook, Group 3 Class 1fax.....$149

MAGIC FX FAXMODEM
2400bps modem. 9600bps send & receive, class 2, Group 3 fax, software.....$139

MAGIC VFX FAXMODEM
2400bps modem. 9600bps, class 2, Group 3 fax, V.42bis & MNP5, software.....$189

MAGIC VFX V.32BIS FAXMODEM
14400bps modem. 14400bps, class 2, Group 3 fax, V.42bis/V.32bis & MNP5, software.....$289

MAGIC MODEMS

MAGIC AMX MODEM
2400bps modem. 100% Hayes compatible.....$69

MAGIC VX MODEM
2400bps modem with compression to 9600bps. Hardware V.42bis & MNP5.....$139

MAGIC VX V.32 MODEM
9600bps modem with compression to 38400bps. Hardware V.32/V.42bis & MNP5.....$199

MAGIC VX V.32BIS MODEM
14400bps modem with compression to 57600bps. Hardware V.32bis/V.42bis & MNP5. Includes software and cable.....$259

ALL MAGIC MODEMS INCLUDE 2 YEAR WARRANTY AND 30 DAY MONEY BACK GUARANTEE

MAGIC HARD WORKING TOOLS FOR YOUR MACINTOSH



NEW! 14400 BPS POWERBOOK MODEM $339
MOUNTS INTERNALLY IN ANY MACINTOSH POWERBOOK, SOFTWARE

MAGIC AFX-24/96 POWERBOOK FAXMODEM $149
MOUNTS INTERNALLY IN ANY MACINTOSH POWERBOOK, GROUP 3, CLASS 1 FAX

EXTERNAL 2400 BAUD 9600 BAUD & 14400 BAUD MODEMS & FAXMODEMS

ADVANCED V.42BIS, V.32BIS & MNP 5 ERROR CHECKING & DATA COMPRESSION CAPABILITIES



MAGIC HARD WORKING TOOLS FOR YOUR MACINT

MACPRODUCTS USA HOLIDAY COUPONS
MENTION COUPON WHEN ORDERING BY TELEPHONE

1 MACINTOSH IICI $2100 WITH ANY MAGIC PURCHASE OF $1000 OR MORE.
NOT VALID WITH ANY OTHER PROMOTION. GOOD THROUGH 1/30/93. CREDIT CARD OR C.O.D. PURCHASES ONLY.

2 SUPERMAC THUNDER 24 $2100 WITH ANY MAGIC PURCHASE OF $1000 OR MORE.
NOT VALID WITH ANY OTHER PROMOTION. GOOD THROUGH 1/30/93. CREDIT CARD OR C.O.D. PURCHASES ONLY.

3 NEC SILENTWRITER 2 MDL 95 $1400 WITH ANY MAGIC PURCHASE OF $750 OR MORE.
NOT VALID WITH ANY OTHER PROMOTION. GOOD THROUGH 1/30/93. CREDIT CARD OR C.O.D. PURCHASES ONLY.

MAGIC MEMORY UPGRADES

1B SIMMs	Starting at $29
1B SIMMs	$69
1B SIMMs for IIsi, IIci, Quadra	$129
MB SIMMs	$549
4/6MB PowerBook	$99/$179/$239
1B Classic Upgrade	$99
VRAM	$59
uadra VRAM	$29

PRINTER RAM

CC PLP II/S 1MB	$49
R960/Realtech/Quickor 8MB Kit	$499
EC SilentWriter 2 M90 2MB Upgrade	$249
EC SilentWriter Model 95 2MB	$139
MS PS-410/815 4MB Upgrade	$239/$349
1MB RAM Upgrade	$49
Turbo 4MB RAM Upgrade	$399

1MB TI RAM $49
2MB NEC $139

ALL MAGIC MEMORY UPGRADES INCLUDE A FULL LIFETIME WARRANTY

MAGIC HARD WORKING TOOLS FOR YOUR MACINTOSH

MAGIC RAILGUN 030 ACCELERATORS FOR MAC SE, PLUS & CLASSIC.

ACCELERATORS AVAILABLE WITH BUILT-IN LARGE SCREEN VIDEO OUTPUT

MAGIC 030 ACCELERATORS

RAILGUN 030 PRO SYSTEM

030 Accelerators with Built-in Video Output, 68882 Math CoProcessor, PMMU, & One or Two Page Display.

System Monitor	*19"*	*15"*
16MHz RailGun PRO	$899	$699
25MHz RailGun PRO	$999	$849
33MHz RailGun PRO **	$1199	$999

*Add $99 for Classic or Plus Version
** 33MHz version includes Virtual 3.0

RAILGUN™ 030 SYSTEM VS. MOBIUS 030

HARDWARE FEATURES	RAILGUN 030 PRO SYSTEM WITH 19" DISPLAY	MOBIUS 030 SYSTEM WITH 19" DISPLAY
CPU SUPPORT	SE, CLASSIC, PLUS	SE, CLASSIC
PROCESSOR	25MHz MOTOROLA 68030	25MHz MOTOROLA EC68030
MATH FPU	68882 BUILT-IN	NOT INCLUDED
PMMU	BUILT INTO 68030	NOT INCLUDED
VIDEO PATH	32-BIT	16-BIT
VIDEO CLOCK	16, 25, 33, & 40MHz	8MHz
MONITOR RES.	1152 x 876	1024 x 768
VIDEO SUPPORT	ALL 3RD PARTIES	ONLY MOBIUS DISPLAYS
VIRTUAL RAM	USING *VIRTUAL 3.0*	NOT AVAILABLE
RAM SUPPORT	UP TO 16MB	UP TO 4MB
BASE PRICE	$999	$1099



RAILGUN 030

Magic RailGun 16MHz	$399
Magic RailGun 25MHz	$449
► Magic RailGun 33MHz	$499
Math CoProcessor Upgrade	$49/$99
► Virtual 3.0 Virtual RAM software	$99

MAGIC ACCELERATORS

Magic LC 030 with CoProcessor	$199
Magic Math LC CoProcessor	$59
Magic Math Classic II CoProcessor	$59
Magic IIsi Dual Slot Card with FPU	$99
Magic Cache IIci / IIsi 64k	$159

AGIC HARD WORKING TOOLS FOR YOUR MACINTOSH

4 RADIUS PRECISIONCOLOR 20" $2600 WITH ANY MAGIC PURCHASE OF $1000 OR MORE.

NOT VALID WITH ANY OTHER PROMOTION. GOOD THROUGH 1/30/93. CREDIT CARD OR C.O.D. PURCHASES ONLY.

5 MAC POWERBOOK 145 4/80 $2400 WITH ANY MAGIC PURCHASE OF $750 OR MORE.

NOT VALID WITH ANY OTHER PROMOTION. GOOD THROUGH 1/30/93. CREDIT CARD OR C.O.D. PURCHASES ONLY.

6 DAYSTAR POWERCACHE 50MHz W/882 $1100 W/ANY MAGIC PURCHASE OF $500 OR MORE.

NOT VALID WITH ANY OTHER PROMOTION. GOOD THROUGH 1/30/93. CREDIT CARD OR C.O.D. PURCHASES ONLY.

7 BUY 10 GET ONE FREE 128 MB OR 256 MB OPTICAL CARTIDGES.

NOT VALID WITH ANY OTHER PROMOTION. GOOD THROUGH 1/30/93. CREDIT CARD OR C.O.D. PURCHASES ONLY.

MAGIC ACCESSORIES

MAGICNET LOCALTALK

MagicNet singles	$15
MagicNet 10-pack, ea.	$10

MAGIC ETHERNET

ETHERNET NUBUS CARDS

ThickNet	$169
ThinNet	$169
10base-T	$169
Transceivers	$85

SCSI ACCELERATOR

Magic SCSI II & Mirror Card	$299
Magic SCSI II Cable	$49

CALL FOR A FREE MACPRODUCTS USA MAGIC CATALOG.

☎ DIAL OUR FIRST CLASS BBS FOR THE LATEST DRIVER UPDATES AND SOFTWARE VERSIONS. FREE BBS ACCESS SOFTWARE WITH ANY PURCHASE. 512-472-1794 VTI 00-8-1-NONE

MACPRODUCTS USA

LEASE

LEASE A COMPLETE MACINTOSH SYSTEM AT AFFORDABLE RATES. CALL FOR DETAILS.

TERMS & CONDITIONS:
Corporate, Educational purchase orders accepted
Returns subject to a restocking fee. Call for and RMA # before returning merchandise. International orders welcome. Magic includes a 30-Day Money Back Guarantee on all Magic™ Products -Excluding Original Shipping. Prices subject to change.

MAC PRODUCTS USA

1 800 622 8721

HARD WORKING SINCE 1985

FAX 512-499-0888
TEL 512-472-8881
CANADA 800-624-9307
SINGAPORE 65-287-5181
CUSTOMER SERVICE
TECHNICAL SUPPORT

608 WEST 22ND
AUSTIN, TEXAS 78705
MALAYSIA TEL 603-734-7330
FAX 603-736-4295
512-472-8881 EXT 403
512-472-8881 EXT 403

CIRCLE 137 ON READER SERVICE CARD.

W9301

need better-than-average hand/eye coordination, but it's well worth the effort. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later. $49.95. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Apr '87) ★ '87 Eddy

Darwin's Dilemma ⭐⭐⭐⭐½

Darwin's Dilemma provides intriguing, deceptively simple entertainment. You manage a game piece called Darwin, which moves other icons to combine them within an invisible grid. These icons include genuine low life such as amoebas or paramecia, and your progress in managing recombinant life forms lets you graduate to jellyfish, octopi, and crabs. A trick called teleswapping lets you accelerate the evolutionary process, and (if you're willing to lose points) you can undo a series of regrettable moves. Version 1.0.1 reviewed. Version 2.0 shipping. Requires Mac Plus or later. $49.95. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (Mar '91)

Diamonds ⭐⭐⭐⭐

In this variant of Breakout-type games, you must guide a ball through 30 mazes, clearing bricks to advance to the next maze. You have to match the ball color with the brick while avoiding traps, opening locks, and constantly reversing directions. You can also create new mazes or customize the maze background with any PICT file. Version 2.0 reviewed. $49.95. Varcon Systems, Inc., 10509 San Diego Mission Rd., Ste. K, San Diego, CA 92108. 619-563-6700. (Dec '92)

Falcon ⭐⭐⭐⭐½

Falcon simulates an F-16 fighter jet dogfighting with gut-tightening, sweat-making realism. Take on MiGs and dodge SAMs. Can be played via modem against other opponents. Version 1.0 reviewed. Version 2.22 shipping. Requires Mac Plus or later. $59.95. Spectrum HoloByte, 2490 Mariner Square Loop, Alameda, CA 94501. 510-522-3584. (May '88)

Ferrari Grand Prix ⭐⭐⭐

Ferrari Grand Prix is an exciting racing-car simulation game. Mastering it takes quite a bit of time and effort. A beginners' course and four other courses are built in to the program. You can also design custom courses and backgrounds. Version 1.0 reviewed. Version 1.65 shipping. Requires Mac Plus or later. $59.95. Bullseye Software, P.O. Box 7900, Incline Village, NV 89450. 702-831-2523. (July '87)

Funny: The Movie in QuickTime ⭐⭐⭐⭐⭐

This QuickTime collection of movies includes 100 jokes told by performers ranging from Frank Zappa to Henny Youngman. Movies can be played in their entirety or searched for jokes based on criteria such as the teller's hair color or level of tastefulness. Jokes range from true stories to riddles to sight gags, with some gratuitous nudity thrown in. An After Dark module displays jokes as screen savers. Requires Macintosh II or higher, System 6.03 or later, a hard drive, a CD-ROM drive, and speakers or headphones. $39.98. Warner New Media, 3500 W. Olive Ave., Ste. 1050, Burbank, CA 91505. 818-955-9999. (Dec '92)

Halls of Montezuma ⭐⭐⭐⭐

Halls of Montezuma is a classic move-the-units war game adapted for the Mac. The scenarios cover famous U.S. Marine battles. Color and black-and-white versions for all scenarios, with good performance and play. You can even create your own scenarios. Requires Mac Plus or later. $44.95. Strategic Studies Group, Inc., 8348 Monticello Dr., Pensacola, FL 32514. 904-494-9373. (Apr '90)

Handwriting Analyst ⭐⭐⭐½

Handwriting Analyst produces a personality profile based on a series of questions about your handwriting. It's simple, and the results will amaze and astound. Version 1.2 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later. $79.95. Wintergreen Software, Inc., P.O. Box 15899, New Orleans, LA 70175. 800-321-9479 or 504-899-0378. (Apr '88)

Insanity ⭐⭐⭐⭐

Insanity is an extension that lets you take out your frustrations on your Mac without actually doing it any harm. Shoot your Mac Plus with an Uzi; bring your Quadra to its knees with a Magnum 44; or splatter your screen with the remains of Bill, who gets shot out of a cannon. A great stress reliever, with realistic sound effects and gory visuals. A shareware version called Madness-Rage is available from on-line services such as ZiffNet/Mac. Version 1.0 reviewed. $28.95. UV Wave, 722 Cobblestone Dr., Shreveport, LA 71106. 318-868-9944. (Dec '92)

Ishido ⭐⭐⭐⭐⭐

Ishido is a flawless, sophisticated strategy game with a few twists. Limited edition comes in an expensive, fancy wood box. Programming is elegant and polished. Many options, including solitaire and multiuser modes. Version 1.0 reviewed. Requires Macintosh Plus or later; color requires 2 MB of RAM and a hard disk. Limited edition, $175; standard edition (from distributor Accolade), $54.95. Publishing International, P.O. Box 70790, Sunnyvale, CA 94086. 800-535-2983 or 408-738-4311. (May '90)

Kid Pix ⭐⭐⭐⭐⭐

Kid Pix is a simple color painting program that has entertaining sounds and attention-grabbing, animated special effects. Wacky Brushes includes drippy paint and soda-pop bubbles. The Electric Mixer thrashes drawings, the Splash tool drops big blobs of paint, and Rubber Stamps gives you a choice of 80 images (such as frogs, birds, and ice-cream cones) and drops your choice wherever you click the cursor. Erasers include the Black Hole, which swallows up the artwork, and Firecracker, which blows everything to smithereens. Sounds include English and Spanish pronunciation of alphabet letters. Version 1.0 reviewed. Version 1.2 shipping. Requires Macintosh Plus or later and a hard drive; sound recording requires System 6.07 or later and a microphone; color display system recommended. $59.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Aug '91) ★ '91 Eddy

Kid Pix Companion ⭐⭐⭐⭐½

This add-on for the popular Kid Pix program offers extra rubber-stamp tools and pictures to color as well as QuickTime movie support. Kids can animate their creations and produce captivating slideshows. Keeps even the most grown-up kid amused for hours. Requires Kid Pix application. $39.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Dec '92)

Kid Works 2 ⭐⭐⭐⭐

With Kid Works 2, children can write and illustrate their own stories and then listen while the Mac reads the story back. Built-in drawing program is fun to use. A little like Kid Pix, this program has several tools, including a rubber-stamp feature that lets you repeat an icon to your heart's content. Slow but worth the wait. $59.95. Davidson & Associates, 19840 Pioneer Ave., Torrance, CA 90503. 310-793-0600. (Dec '92)

Klondike ⭐⭐⭐⭐⭐

Klondike is a version of solitaire that uses video-game-like scoring to create a superb, totally addictive game. Simple to play — nearly impossible to stop playing. Version 3.3 reviewed. Version 5.01 shipping. Shareware, $10. Unison-Tymlabs, 675 Almanor Ave., Ste. 202, Sunnyvale, CA 94086. 408-245-3000. (Dec '87)

Living Books ⭐⭐⭐⭐⭐

The first two packages in the Living Books CD-ROM series, Just Grandma and Me and Arthur's Teacher Trouble, are delightful. Children can have the story read to them or can listen to the story and play along. Double-clicking on the pictures lets you find the hidden games (find the crooning chocolate-chip cookies!).

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Fascinating animations. Moving from page to page can take a while, but that didn't faze our preschool test subjects. Requires color display system and CD-ROM drive. $49.95 each. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Dec '92)

MacRacquetball ⭐⭐⭐½

MacRacquetball uses digitized videos and sounds of professional players to create a realistic simulation. Has lots of control settings and can be played with another person via modem or between hard-wired Macs. Turn off hard drives before playing. Version 2.0 shipping. Requires Mac Plus or SE. $59.95. XOR Corp., 10808 Normandale Blvd., Bloomington, MN 55437. 800-635-2425. (Oct '87)

McGee ⭐⭐

McGee is nicely animated, if limited, entertainment for two-to-four-year-olds. Four-year-olds will quickly outgrow McGee's few and predictable options. Version 1.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later; II series or LC required for color. $29.95 direct. Lawrence Productions, Inc., 1800 S. 35th St., Galesburg, MI 49053. 800-421-4157 or 616-665-7075. (Aug '90)

Mission: Starlight ⭐⭐⭐½

Mission: Starlight is a throwback to Star Wars-type arcade games. It lets you swoop in low and fast, vaporizing foreign objects and lobbing missiles into the enemy power plant. This type of program has been around before, but this one is fast-paced, with responsive spaceship and intriguing graphics. Version 1.1 reviewed. Version 1.1.6 shipping. Requires Macintosh Plus or later with System 6.03 or later. $49.95. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (Oct '90)

Mission: Thunderbolt ⭐⭐⭐⭐

Designed by Dave Scheifler, this game takes place in a postapocalyptic world invaded by aliens. Your mission is to recover an antimatter device that can make hash of your enemies. But first, you must fight or charm your way through a multitude of beasties while maintaining your supply of weaponry, armor, strange devices, and pills of various colors. Each new game has radically different characters and environments. There's no single way to do things correctly, and the keys to survival are forethought, cunning, and creativity. Extended play guaranteed to turn rational, well-adjusted citizens into bug-eyed social misfits devoid of family values. Version 1.0 reviewed. Requires Macintosh Plus or later with System 6.03 or later. $59.95. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (Oct '92)

Mutant Beach ⭐⭐⭐⭐

Mutant Beach leaves you happily stranded on an island of idols and mutated creatures run amok. As Native Nick, you must travel to the Idol City and search for the jeweled nose of the Great Idol Mohawk, who has set loose his servants to create chaos in your village. It's all in gorgeous color with a pulsing reggae soundtrack (in System-7 land). Feels like a cross between an adventure game and an arcade game. Animation and characters are first-rate, although some sequences are overly repetitive. Version 1.02 reviewed. Requires Macintosh Plus or later with 2 MB of RAM, System 6.07 or later, and a hard drive; color display system recommended. $59.95. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (Dec '92)

Ogre ⭐⭐⭐⭐

Ogre is a strategy tank game with a two-player option that is played on a hexagonal grid. The ogre is an intelligent cybertank that's out to smash your command post. The program lets you customize your defense. Exceptionally good Mac interface. $29.95 direct. Origin, 110 Wild Basin Rd., Ste. 230, Austin, TX 78746. 800-999-4939 or 512-328-0282. (Nov '87)

Oids ⭐⭐⭐⭐⭐

Oids is one of the finest Mac arcade-style games ever produced. Futuristic action based on your rescue of enslaved tiny Oids from hostile planets bristling with missiles and artillery. Limited to black-and-white or 16 colors. Lasting entertainment value. Version 1.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $44.95. Software Heaven (FTL Games), 6160 Lusk Blvd., Ste. C206, San Diego, CA 92121. 619-453-5711. (June '91)

Pipe Dream ⭐⭐⭐⭐

Pipe Dream is an addictive game that demands a nearly perfect mixture of strategy and speed. You must build a pipeline fast enough to prevent the stuff in the line from running out — that's it. It has 36 levels of play. Its copy-protection scheme requires you to use an included decoding wheel. Version 1.0 reviewed. Version 1.2 shipping. Requires Macintosh Plus or later. $24.95. Lucasfilm Ltd., Games Division, P.O. Box 10307, San Rafael, CA 94912. 800-782-7927 or 415-721-3300. (May '90)

PlayMaker Football ⭐⭐⭐⭐½

This combination of football and computer game is more of a coaching simulation than a play simulation. Gives priority to stategic skills rather than to animation — although the animation is reasonably good. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later. $49.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (May '91)

Prince of Persia ⭐⭐⭐⭐½

This swashbuckling arcade game features realistic animations of Hollywood-style swordfighting. To rescue a sultan's imprisoned daughter from a dangerous dungeon, all you have to do is traverse winding corridors, fight numerous muscular guards, snatch magical objects, leap across chasms, drink potions, crawl under gates, and hang on by your fingertips. Then things get complicated. Version 1.0 reviewed. Requires Macintosh Plus or later, 2 MB of available RAM, and a hard drive; color display system recommended. $49.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Dec '92)

Railroad Tycoon ⭐⭐⭐⭐

Railroad Tycoon provides an excellent simulation environment that revolves around building trains, schedules, and stations, and then laying miles of track. Includes natural objects such as trees and mountains, as well as cities and a wide variety of geographic and time options. Provides fun animations and sound, which can be turned off for faster performance. Supports color. Detailed, historically accurate railroading information is built in. Password-type copy protection requires checking manual. Version 1055.01 reviewed. Requires Macintosh Plus or later with 2.5 MB of RAM and System 6.03 or later. $69.95. MicroProse Software, 180 Lakefront Dr., Hunt Valley, MD 21030. 410-771-1151. (Jan '92)

Red Baron ⭐⭐⭐⭐

World War I airplanes engage in dogfights in this flight-simulation game. Players choose to play either German or Allied forces and run a variety of missions against the game's many aces, including the Red Baron. Record your missions, using the Mission Recorder option, and then play them back to help plan future strategy. The manual includes historical background, maps, and flight tactics. $69.95. Dynamix, Inc., 99 W. 10th, Ste. 337, Eugene, OR 97401. 503-343-0772. (Dec '92)

Rise of the Dragon ⭐⭐⭐⭐½

Rise of the Dragon is a sci-fi detective fantasy set in Los Angeles. The city has fallen into the Age of Decay, and your job as private investigator William "Blade" Hunter is to stop a string of drug murders. Futuristic color graphics, soundtrack, animations, and interface design are superb. Offers multiple story lines for repeated play. Skimpy documentation. Version 1.0

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

reviewed. Requires color display system. $59.95. Sierra On-Line, Inc., P.O. Box 485, Coarsegold, CA 93614. 800-326-6654 or 209-683-4468. (Aug '92)

RoboSport ⚡⚡⚡

Billed as a thinking man's shoot-'em-up game, RoboSport is actually a battle-strategy simulation that pits teams of robots against each other. Choose from predesigned battle scenarios, or program your robots' actions. As many as three players can use the same Mac, serial or modem connections, or communication via AppleTalk network. Fun if you enjoy tactics and planning, but don't expect lively action — especially via modem. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later and System 6.03 or later; 2 MB of RAM and a hard drive required for color version. $59.95. Maxis, 2 Theatre Square, Ste. 230, Orinda, CA 94563. 800-336-2947 or 510-254-9700. (Aug '91)

Rodney's Wonder Window ⚡⚡⚡⚡

Better than Saturday-morning cartoons, this CD-ROM is an interactive art show that's fun for kids but surprisingly sophisticated. Take a tour of the Poke and Prod Pet Shop, or spend some time tending the Digital House Plant (you plant the seeds the first time you open Rodney's Wonder Window, and the plant grows over the next five weeks — as long as you remember to water it and apply bug spray). $39.95. Voyager Company, 1351 Pacific Coast Hwy., Santa Monica, CA 90401. 800-446-2001 or 310-451-1383. (Dec '92)

Sherlock Holmes, Consulting Detective ⚡⚡⚡⚡½

This CD-ROM is great entertainment as well as an official product of Arthur Conan Doyle's estate. Interactive design uses more than 90 minutes of live-action video that runs at 15 fps with synchronized sound. Actors sporting impeccable English accents and period costumes recreate three mysteries: The Mystified Murderess, The Tin Soldier, and The Mummy's Curse. Solving the mysteries requires detailed examination of scenes, interrogation of witnesses and suspects, and collecting clues from Scotland Yard, newspapers, and secret sources. Beware: Some people lie, and red herrings abound! Version 1.00 reviewed. Requires Macintosh LC or higher, System 6.07 or later, a color display system, and a CD-ROM drive. $69.95. ICOM Simulations, Inc., 648 S. Wheeling Rd., Wheeling, IL 60090. 800-877-4266 or 708-520-4440. (Dec '92)

SimCity ⚡⚡⚡⚡

SimCity is an animated game that's also a city-planning simulator. You can work on any one of eight scenarios included in the package. Evaluation window gives you instant feedback on your efforts. Included Terrain Editor program lets you build cities from the ground up. Version 1.0 reviewed. Version 1.4 shipping. Requires Macintosh Plus or later and System 6.03 or later; 2 MB of RAM and hard drive required for color version. $59.95. Maxis, 2 Theatre Square, Ste. 230, Orinda, CA 94563. 800-336-2947 or 510-254-9700. (June '89) ★ '89 Eddy

SimEarth ⚡⚡⚡⚡½

In SimEarth, you are the Supreme Being who guides an Earth-like planet's many species from evolution to civilization and finally to Exodus toward the distant galaxies before the Sun destroys the planet. Inspiring, highly detailed, and timely. Difficult to learn and has minor bugs. Version 1.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later; 2 MB of RAM and a hard drive required for color. $69.95. Maxis, 2 Theatre Square, Ste. 230, Orinda, CA 94563. 800-336-2947 or 510-254-9700. (July '91)

Sky Shadow ⚡⚡⚡⚡⚡

Sky Shadow is a must for anyone who appreciates fast action and has a sense of humor. It features a funky flying machine, kerchunking its way across a comic landscape. Not a game to play quietly; sound is everything in Sky Shadow. Version 1.02 reviewed. Version 1.12 shipping. Requires Macintosh Plus or later with System 6.03 or later. $49.95. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (Oct '90)

Solitaire Royale ⚡⚡⚡⚡

Solitaire Royale is a collection of eight solitaire card games. The Tour mode cycles you through each game. Tournament deals the same hand for several players. Copy-protected. Version 1.0 reviewed. Version 1.1 (black and white) and version 1.0 (color) shipping. Requires Macintosh Plus or later; color version requires Macintosh SE/30 or II series. $39.95. Spectrum HoloByte, 2490 Mariner Square Loop, Alameda, CA 94501. 510-522-3584. (May '88)

Space Quest I ⚡⚡⚡⚡

Space Quest I is a 3-D animated adventure in which you play a janitor in a dicey situation. The goal is to get off your ship before it explodes and save the Earnon System. The game is part of a four-part series. Version 1.0 reviewed. Version 2.0 shipping. $49.95. Sierra On-Line, Inc., P.O. Box 485, Coarsegold, CA 93614. 800-326-6654 or 209-683-4468. (Sept '87)

Spaceship Warlock ⚡⚡⚡⚡½

Not a conventional shoot-'em-up, this highly innovative CD-ROM rewards your exploration skills with a dazzling graphic environment, eerie sounds and speech, and an addictive ride through outer-space animations. Created by Mike Saenz and Joe Sparks, the disc contains no less than 128 MB of data and futuristic artwork. Characters and plot are right up there with the best of sci-fi comic books, with a splash of NASA-style 3-D modeling. Relies on clever point-and-click navigation rather than heavy text input. Not as fast as the movie Bladerunner, but here you're definitely part of the action. Version 1.0 reviewed. Requires color display, 4 MB of RAM, and a CD-ROM drive. $95.00. Reactor, Inc., 445 W. Erie Ave., Chicago, IL 60610. 312-573-0800. (Feb '92)

Spectre ⚡⚡⚡⚡½

Spectre is a supremely well-designed arcade game that pits tank against tank in a futuristic version of Capture-The-Flag. Game display reveals an eerie, impressive, nocturnal landscape. Using simple keyboard commands, you navigate your tank through a fast-moving perspective view of animated windmills, titanium-hard barrier polygons, and life-sustaining ammo dumps. Great sound effects and color support. Tanks are easily customized with different combinations of speed, armor, and armament. Can be played by one user versus the computer, but the real thrill comes from battling as many as five other Spectre owners through an AppleTalk network. Addictive, amazingly fast, and a serious threat to office productivity. Version 1.0 reviewed. Requires Macintosh Plus or later. $59.95. Velocity Development, P.O. Box 875, Palatine, IL 60078. 708-991-0594. (May '92)

Spelunx and the Caves of Mr. Seudo ⚡⚡⚡⚡⚡

Direct from Robyn and Rand Miller, this "noncompetitive exploration environment" is an interactive extravaganza. Builds on the success of their previous masterpieces, The Manhole and Cosmic Osmo. Perfect for kids of all ages. Excellent way to have fun while learning biology, astronomy, music, chemistry, and so forth. Easy point-and-click interface to an endless labyrinth of tunnels, secret rooms, journeys in space, and surprise color animations. Version 1.0 reviewed. Requires Macintosh Plus or later, 2 MB of available RAM, and HyperCard; color display system recommended. $49.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Nov '92)

Star Fleet I: The War Begins! ⚡⚡⚡½

Star Fleet I: The War Begins! is a space opera of the Star Trek variety. Rise through the ranks from ensign to admiral

MICE RATINGS ⚡ ⚡½ ⚡⚡ ⚡⚡½ ⚡⚡⚡ ⚡⚡⚡½ ⚡⚡⚡⚡ ⚡⚡⚡⚡½ ⚡⚡⚡⚡⚡

in this serialized adventure. No color support in this old game, and it may not work reliably with newest Systems. Version 2.1 reviewed. Requires Mac Plus or SE. $29.95. Interstel Corp., P.O. Box 57825, Webster, TX 77598. 713-946-7676. (May '88)

Strategic Conquest ⭐⭐⭐⭐½

Strategic Conquest challenges you to discover an unexplored world and conquer it by manufacturing and deploying armies, ships, and planes. This two-disk game doesn't support an external drive. Version 1.0 reviewed. Version 3.01 shipping. Requires Macintosh Plus or later and System 6.03 or later. $59. Delta Tao Software, Inc., 760 Harvard Ave., Sunnyvale, CA 94087. 800-827-9316 or 408-730-9336. (Feb '88)

Stratego: The Computer Game ⭐⭐⭐⭐

The Mac version significantly improves on the classic Milton-Bradley board game in many ways. The object of the game is to capture your opponent's headquarters (symbolized by the enemy flag) before the enemy captures yours. Each side deploys an army of 32 officers (valued according to their rank), 1 spy, 6 bombs, and 1 flag. The Mac's presentation of Stratego closely resembles the board-game version's basic grid. The copy-protection scheme requires you to use a cardboard code wheel prior to play. Version 1.0 reviewed. Requires Macintosh Plus or later. $49.95. Spectrum HoloByte, 2490 Mariner Square Loop, Alameda, CA 94501. 510-522-3584. (May '91)

Super Tetris ⭐⭐⭐⭐

This sequel to the popular game Tetris has a similar basic premise: As groups of objects float down the screen, you must rotate and shift groups so they fit with successive pieces to form solid rows. As you move up to ever-higher levels of play, the music and backgrounds change and pieces drop faster. Now, however, your goal is to work down to the bottom of a pit, but once you're there, a new pit appears that requires greater skill to navigate. Falling bombs, buried prizes, Russian tunes, and graphics of the Moscow Circus make this sequel as addictive as the original. $49.95. Spectrum HoloByte, 2490 Mariner Square Loop, Alameda, CA 94501. 510-522-3584. (Dec '92)

Surgeon 3: The Brain ⭐⭐⭐½

If you've ever wanted to be a brain surgeon, now's your chance. In Surgeon 3, you're presented with life-or-death decisions and the future of your patients is in your hands. There are three different skill levels, so you can work your way from intern to attending physician. A great feature is the library, where you can look up information about brain diseases and neurology. A drawback is that there's little information about how to play the game, so you learn what to do by making mistakes — and losing your patients. Color, $59.95; black-and-white, $49.95. ISM, Inc., P.O. Box 247, Phoenix, MD 21131. 410-560-0973. (Dec '92)

Synchronicity ⭐⭐⭐½

Synchronicity, based on the I Ching, can be used as a stress-reduction or decision-making tool. Beautiful artwork and sounds. Even skeptics like it. Version 1.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.04 or later. $59.95. Visionary Software, Inc., P.O. Box 69447, Portland, OR 97201. 800-877-1832 or 503-246-6200. (Mar '90)

Tesserae ⭐⭐⭐⭐½

Tesserae has a simple premise: Clear the game board of colored tiles by jumping one over another in as few moves as possible. Deceptively hard to master. Color is key to this game and governs which tiles you can jump and where you can land. In black-and-white mode, the tiles have differing patterns. Absolutely gorgeous color, with a satisfying pyrotechnic display once you're down to your last tile. Excellent sound effects. Has no paper documentation, although clever on-line manual provides interactive instruction. Version 1.04 reviewed. Requires Mac Plus or later. $49.95. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (Mar '92)

Welltris ⭐⭐⭐⭐

Welltris is an arcade game that is a sequel to Tetris. You maneuver falling shapes in 3-D. Has musical accompaniment, options to preview shapes, and color or black-and-white versions. Not a DA. Copy-protected. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later. $39.95. Spectrum HoloByte, 2490 Mariner Square Loop, Alameda, CA 94501. 510-522-3584. (Oct '90)

Wordtris ⭐⭐⭐⭐

The fourth game in the popular 'tris series puts a new twist in the familiar Tetris scheme of positioning multishaped objects in horizontal lines. This time, the blocks are all squares, but each contains a letter. Players must form words with these letters to prevent the screen from filling up. This game is great fun for one player or more (you can play against other players over a network or via modem). $49.95. Spectrum HoloByte, 2490 Mariner Square Loop, Alameda, CA 94501. 510-522-3584. (Dec '92)

Financial Management

A4 ⭐⭐⭐½

A4 is based on 4th Dimension, the relational-database manager, and thus has 4D's power and drawbacks. It integrates general-ledger, accounts-payable, and accounts-receivable modules. Users familiar with 4D can customize it easily. Excellent multiuser capabilities. There's no payroll or last-in, first-out system, and it can be very slow. Version 2.0 reviewed. Version 3.1 shipping. Requires Macintosh LC or higher with 2 MB of RAM. $1,595; with open source, $3,595. Softek Design, Inc., P.O. Box 2100, Telluride, CO 81435. 303-728-5252. (May '90)

Accountant, Inc. ⭐⭐⭐⭐

Accountant, Inc. offers a great deal of functionality, a high degree of conformance to the Mac interface, and solid accounting and bookkeeping fundamentals. Uses double-entry accounting. Compatible with AppleShare and MultiFinder. Version 1.01 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and a hard drive. $595. Softsync, Inc., 800 S.W. 37th Ave. (North Tower), Ste. 355, Coral Gables, FL 33134. 800-933-2537 or 305-444-0080. (Aug '90) ★ '91 Eddy

ACCPAC Simply Accounting ⭐⭐⭐⭐

ACCPAC Simply Accounting has six ledgers and eight journals to handle the needs of most small-to-medium-sized businesses. Better Mac interface than most accounting packages. Payroll tax labels can't be modified, which forces you to subscribe to Bedford's yearly update service. Version 1.03 reviewed. Version 1.3 shipping. Requires Mac Plus or later with System 6.03 or later and hard drive. $199; updates $100 per year or free with SupportPlus program. Computer Associates International, Inc., One Computer Associates Plaza, Islandia, NY 11788. 800-531-5236 or 516-342-5224. (Sept '88)

Business Sense ⭐⭐⭐½

Business Sense is a basic double-entry accounting package with a one-write approach. Reports on two years' worth of data. Has unusually strong data-importing and -exporting capabilities. Has payroll and budgeting features. Works on a single Mac only; tasks can't be divided among multiple machines. Version 1.3 reviewed. Version 1.6 shipping. Requires Macintosh Plus or later with System 6.07 or later and a hard drive. $199 (or $129.95 direct). Business Sense, Inc., 318 Sapphire St., Kemmerer, WY 83101. 800-377-4954 or 307-877-2231. (May '90)

CashLedger ⭐⭐⭐⭐

CashLedger uses cash-basis accounting rather than accrual accounting. Double-entry bookkeeping is supported transparently. Has transaction journals. No customer credit limits or finance-charge calculations. Version 1.2 reviewed.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Version 1.5 shipping. Requires Macintosh Plus or later. $195; upgrade to MultiLedger, $200. CheckMark Software, Inc., 1520 E. Mulberry, Ste. 200, Fort Collins, CO 80524. 800-444-9922 or 303-484-3541. (May '90)

CheckFree ⭐⭐⭐½

CheckFree is electronic-bill-paying software that works with a dedicated service. Bills are paid by printed draft or by electronic-transfer method. Users have no way of knowing in advance which method the service will use for a particular payment, so four days' notice is required for payments. Your regular monthly bank statements show all CheckFree electronic-funds transfers. Software works well but has problems with MultiFinder. Supports only simple budgeting. Good for users whose financial setup includes lots of installment payments or frequent late charges. Terrible manual. Version 1.5 reviewed. Requires Macintosh Plus or later, System 6.03 or later, and Hayes-compatible modem; hard drive recommended. $33.95 including shipping; service costs $9.95 per month for up to 20 payments, $3.50 for each additional 10 payments. CheckFree Corp., 720 Greencrest Dr., Westerville, OH 43081. 800-882-5280 or 614-898-6000. (Sept '91)

Checkwriter ⭐⭐⭐⭐

Checkwriter is a personal-accounting package that uses your checkbook like a ledger. Limited financial planning, but features include an overbudget warning for specified categories, a transfer command that shifts funds between accounts, an address database, drawing tools for designing checks, a Quicken file converter, good reporting options, and an updating function for recurring transactions. Includes a DA version, payment-reminder INIT, and two-level password protection. Outputs checks on laser printers or ImageWriters. Version 3.1 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later and System 6.05 or later; hard drive recommended. $69. Aatrix Software, Inc., 523 N. Washington Ave., Grand Forks, ND 58203. 800-426-0854 or 701-746-6801. (Sept '91)

Components Accounts Payable ⭐⭐⭐⭐½

Components Accounts Payable is part of an integrated accounting series. Provides state-of-the-art flexibility, integrity, and functionality. This easy-to-use module sets up detailed account information, including bank data, payment terms, and expense items for disbursements. Fast. For small-to-medium-sized businesses that don't require a multiuser accounting system. Excellent documentation. Version 1.0 reviewed. Requires 68030 CPU or higher, 2 MB of RAM, System 6.03 or later, and a hard drive. $795. Satori Software, 2815 Second Ave., Ste. 295, Seattle, WA 98121. 206-443-0765. (Oct '91)

Components Accounts Receivable ⭐⭐⭐⭐½

Components Accounts Receivable is part of an integrated accounting series. Provides state-of-the-art flexibility, integrity, and functionality. This module can handle as many as 252 special journals and does an outstanding job of tracking financial data at different levels of a business operation. Fast and easy to use. For small-to-medium-sized businesses that don't require a multiuser accounting system. Thorough, well-designed documentation. Version 1.0 reviewed. Requires 68030 CPU or higher, 2 MB of RAM, System 6.03 or later, and a hard drive. $795. Satori Software, 2815 Second Ave., Ste. 295, Seattle, WA 98121. 206-443-0765. (Oct '91)

Components General Ledger ⭐⭐⭐⭐⭐

Components General Ledger is part of an integrated accounting series. Provides state-of-the-art flexibility, integrity, and functionality. Report generator may be strong enough to entice you to import data and use it with other accounting systems. Especially appealing to users with database or graphics backgrounds. Several optional modules are available. Version 1.0 reviewed. Requires 68030 CPU or higher, 2 MB of RAM, System 6.03 or later, and a hard drive. $795; Job Cost/Time Billing, $1,495; Accounts Receivable, $795; Accounts Payable, $795. Satori Software, 2815 Second Ave., Ste. 295, Seattle, WA 98121. 206-443-0765. (Oct '89)

Computerized Classic Accounting ⭐⭐⭐⭐½

Computerized Classic Accounting is an Excel-based integrated accounting system. The spreadsheet interface is intuitive, working like traditional paper journals and ledgers. Supports custom reports, fully detailed audit trail, and password protection. Analysis can be done in Excel at any time. A good alternative for those currently using paper ledgers. Version 1.5 reviewed. Version 3.0 shipping. Requires Macintosh SE or later with 2 MB of RAM, Microsoft Excel 3.0 or later, and a hard drive. Basic configuration, $195; Client Write-Up version for accountants, $495; enhanced version, $695. Absolute Solutions, Inc., P.O. Box 232400, Leucadia, CA 92023. 800-633-7666 or 619-436-5495. (Jan '90)

DacEasy Light Checkbook Accounting ⭐⭐⭐⭐

This is a well-done, functional system for small-business and personal accounting that's like using a checkbook. After the initial setup of personal data, preferred forms, and passwords, you have available a full range of bookkeeping options, reports, invoices, and transaction analyses. Can handle multiple bank accounts, and even credit-card purchases and balances. Version 2.0 reviewed. $69.95. DacEasy, Inc., 17950 Preston Rd., #800, Dallas, TX 75252. 800-877-8088 or 214-248-0205. (May '91)

Dollars & Sense ⭐⭐⭐

This personal-finance management program can share data with tax planner Forecast and an electronic-banking utility called Moneyline. Provides a variety of basic accounting tools. Does not fill out tax forms. Upcoming version will allow automatic file transfer to MacInTax. Version 1.1 reviewed. Version 5.0 shipping. Requires Macintosh Plus or later with System 6.07 or later and a hard drive. $99 (or $49.95 direct). Business Sense, Inc., 318 Sapphire St., Kemmerer, WY 83101. 800-377-4954 or 307-877-2231. (Mar '87)

Evolve ⭐⭐½

Evolve is a collection of Excel macros that attempts to provide streamlined financial reports and graphs from accounting data. Difficult to set up and use, and calculation is slow. Imports data in a wide variety of exchange formats, but only one tabular arrangement of data fields can be imported. Inflexible system for naming and locating of files and folders. Includes report editor for designing custom layouts. Version 1.01 reviewed. Requires Macintosh SE or later with 2 MB of RAM, Excel 3.0 or later, and a hard drive. $195. Absolute Solutions, Inc., P.O. Box 232400, Leucadia, CA 92023. 800-633-7666 or 619-436-5495. (Sept '92)

Flexware ⭐⭐⭐⭐

Flexware is based on a proprietary language. This true multiuser accounting system must be professionally installed — it can't be used just off the shelf. Highly modular and extremely customizable. Basic modules cover all aspects of accounting. Can automatically pass data into Excel for further analysis. Version 6.02C reviewed. Version 6.91 shipping. Requires Mac Plus or later with hard drive and 4 MB RAM. $895 per module, except Order Processing, Purchasing, Sales/Lead Tracking, and Request for Service, $795 each; Point-of-Sale, $695; Job Cost, $995. Flexware, Inc., P.O. Box 68, 2255 Westlake Blvd., Tahoe City, CA 96145. 800-527-6587 or 916-581-6999. (May '90)

Great Plains Accounting Series ⭐⭐⭐⭐

Great Plains Accounting Series consists of several modules covering all aspects of

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

accounting. Excellent and extensive documentation. Looks and feels like a mainframe accounting system. Outstanding functionality for serious users. Version 5.2 reviewed. Version 6.0 shipping. Requires Mac SE or later and a hard drive. Per module, $795, except: Import Manager, $495; Executive Advisor, $595; Job Cost, $995; Reconciliation: $695; Import Manager, $495; Developer Toolbox, $175; Network Manager, $995 for 4 users. Great Plains Software, 1701 S.W. 38th St., Fargo, ND 58103. 800-456-0025 or 701-281-0550. (May '90)

M.Y.O.B. ‡‡‡‡

M.Y.O.B. (Mind Your Own Business) is functional enough for small-business accountants but accessible to novices. Lacks multiuser capabilities. Has integrated general-ledger, checkbook, accounts-receivable, accounts-payable, and inventory modules. No integrated payroll. Imports a wide variety of financial and text data in comma- or tab-delimited formats. Powerful search capabilities. Handles complex reports and forms creation, including invoices, packing slips, and labels. Card File feature maintains a simple contacts database and can autodial telephone numbers with a modem. Version 3.0 reviewed. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $249. Teleware, Inc., 300 Round Hill Dr., Rockaway, NJ 07866. 201-586-2200. (Nov '92)

MacInTax ‡‡‡‡

MacInTax is an excellent tool for preparing federal and state tax forms. Intuitive and easy to use, with all separate forms automatically interlinked for accurate recalculation. Accepts data from the leading personal-finance programs. Displays in WYSIWYG format and then prints IRS-accepted forms on PostScript laser printers or dot-matrix printers. Many state-tax-form sets are also available. New version incorporates some features (such as user Interview and consulting) of discontinued program TurboTax. Logical Next Step feature, along with well-implemented Balloon Help (for System 7 users), helps you render unto Uncle Sam that which belongs to him. Version 1991 reviewed. Requires Macintosh SE or later, System 4.2 or later, and a hard drive. Federal, $79.95 (annual update, $39.95); state, $49.95 (update, $24.95). ChipSoft, Inc., 6330 Nancy Ridge Rd., Ste. 103, San Diego, CA 92121. 619-453-8722. (Apr '92) ★ '86, '89 Eddy

MacInvoice ‡‡‡½

MacInvoice is an invoicing system for small businesses. Limited formatting ability; excellent printing ability. Version 1.0 reviewed. Requires Macintosh Plus or later. $69.95. Synex, 692 Tenth St., Brooklyn, NY 11215. 800-447-9639 or 718-499-6293. (Nov '89)

MacMoney ‡‡‡‡

MacMoney is a full-featured financial manager that produces a wide and useful variety of reports and graphs. Excellent for home-based businesses. Works with Survivor's Invoicit program to generate invoices. No password protection. Version 3.5 reviewed. Version 3.53 shipping. Requires Macintosh Plus or later. $119.95. Survivor Software Ltd., 11222 La Cienega Blvd., Ste. 450, Inglewood, CA 90304. 310-410-9527. (Sept '91) ★ '86 Eddy

Managing Your Money ‡‡‡‡½

Managing Your Money is Andrew Tobias' full-featured, well-supported, personal financial-manager program. Can print checks, keep detailed accounts or budgets, and help with planning for taxes, insurance, and retirement. Tracks complex portfolio management and net worth, but requires manual updating of stock and bond values. Allows password protection. Can import Quicken 3 data, and can export data for use in MECA's tax-preparation package, TaxCut. Excellent for users with moderately complex finances or investments. Overkill for simple money-management tasks. Version 5.0 reviewed. Requires Macintosh Plus or later, System 6.03 or later, 2 MB of RAM, and a hard drive. $79.95. MECA Software, Inc., 55 Walls Dr., P.O. Box 912, Fairfield, CT 06430. 203-256-5000. (Dec '92)

Multi-user Desktop Accounting (MDA) ‡‡‡‡

Multi-user Desktop Accounting uses the Omnis database manager. Sets the standard for multiuser performance and accounting functionality in the off-the-shelf market. There are nine fully integrated modules and eight user-security classifications. Version 2.05 reviewed. Version 2.07 shipping. Requires Mac Plus or later with 2 MB RAM recommended (4 MB for AppleShare server), and hard drive. Single-user version, $1,795; up to 5 users, $2,795; up to 10 users, $3,795. Logisoft, Inc., 128 Villa Ct., Lafayette, CA 94549. 510-939-3556. (May '90)

MultiLedger ‡‡‡‡½

MultiLedger is an integrated general-ledger, accounts-receivable, accounts-payable, and inventory system. It does batch printing, handles multiple companies, tracks budgets, and has high-resolution-graphics statement printing. Double-entry bookkeeping supported transparently. Has transaction journals, but no customer credit limits. Multiuser version also available. Version 1.3 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later. MultiLedger, $395; multiuser version, $695. CheckMark Software, Inc., 1520 E. Mulberry, Ste. 200, Fort Collins, CO 80524. 800-444-9922 or 303-484-3541. (May '90)

Payroll ‡‡‡‡

Payroll is a stand-alone, specialized application that can operate as a module within the comprehensive accounting programs MultiLedger or CashLedger (also from CheckMark). Version 3.5 reviewed. Version 4.6 shipping. Requires Macintosh Plus or later. $295. CheckMark Software, Inc., 1520 E. Mulberry, Ste. 200, Fort Collins, CO 80524. 800-444-9922 or 303-484-3541. (May '90)

Peachtree Accounting for Macintosh ‡‡‡‡½

Peachtree Accounting for Macintosh (formerly atOnce!) is an integrated accounting package with general-ledger, accounts-payable, accounts-receivable, and payroll modules. Primarily for small businesses. Features very good security, customizable reports, flexible fiscal calendar with 12 or 13 periods per fiscal year, and up to 26 open periods stored on-line. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and a hard drive. $99. Peachtree Software, 1505 Pavilion Place, Norcross, GA 30093. 800-247-3224 or 404-564-5800. (Nov '89) ★ '89 Eddy

Peachtree Insight Accounting for Macintosh ‡‡‡‡½

Insight is a high-powered accounting program for small- to medium-sized businesses. Modules include Accounts Receivable & Billing, Accounts Payable, General Ledger, Inventory, and Payroll. Expert Reports feature allows powerful, customizable analysis of financial status. Version 1.0 reviewed. Requires Macintosh Plus or later, System 4.2 or later, and a hard drive. $395. Peachtree Software, 1505 Pavilion Place, Norcross, GA 30093. 800-247-3224 or 404-564-5800. (Dec '86) ★ '86 Eddy

ProfitAbility Professional ‡‡‡‡

This HyperCard-based single-entry bookkeeping system, with its emphasis on ease of use and reporting, is an ideal choice for small businesses looking for a do-it-yourself time-and-billing package. Handles general-ledger accounts, check printing, invoicing, price estimates, basic inventory control, time-and-materials tracking, and payroll (including federal taxes, FICA, and Medicare costs). Has built-in phone list, mailing list, and a daily planner. Unsuitable if your business involves very complex accruals or tax reporting, but perfect for a mom-and-pop accrual or cash-accounting

system. Includes HyperCard 2.1. Version 1.4 reviewed. Version 1.8 shipping. Requires Mac II series or higher with 2.5 MB of RAM and System 6.05 or later; 4 MB of RAM recommended. $149 direct; optional payroll and time/materials modules, $29.95 each. Wetzel & Co., Inc., 147 E. Rocks Rd., Norwalk, CT 06851. 800-635-7849 or 203-846-2504. (Jan '92)

Project Billing ⭐⭐½

Project Billing handles all aspects of client accounting and produces professional-looking bills. It's good at batch entry and at assigning different tax rates to various items. The interface is clumsy, and "action" descriptions are too limited. It lacks a DA for data entry. Version 1.57 reviewed. Version 1.6 shipping. Requires 68030 CPU or higher, 2 MB of RAM, System 6.03 or later, and a hard drive. $595. Satori Software, 2815 Second Ave., Ste. 295, Seattle, WA 98121. 206-443-0765. (Apr '90)

Quicken ⭐⭐⭐⭐⭐

Quicken is an excellent tool for home budgets, cash-flow management, and tax-record keeping. Mimics your checkbook, so tracking finances is easy and intuitive. Provides detailed, customizable reports supporting tax deductions, expenses, and sources of income for U.S. Federal and Canadian tax forms. Offers CheckFree electronic bill-paying support. Superlative documentation and on-line help. Exports data in SYLK (Excel) or STD (MacInTax and TurboTax) formats. Lacks standard accounting safeguards and advanced features required for serious business use. Version 3.0 reviewed. Requires Macintosh Plus or later with System 6.03 or later and a hard drive. $69.95. Intuit, Inc., P.O. Box 3014, 155 Linfield Ave., Menlo Park, CA 94026. 800-624-8742 or 415-322-0573. (Dec '92) ★ '88, '91 Eddy

Sales and Marketing Forecasting Toolkit ⭐⭐⭐⭐½

The Sales and Marketing Forecasting Toolkit is an Excel-based productivity package. The 18 worksheets, 8 charts, and 1 macro sheet let you create graphs visually, and then the program shows you the numbers needed to substantiate it. This real-world approach works well. Version 2.0 reviewed. Requires Macintosh Plus or later, System 4.2 or later, and Microsoft Excel or Lotus 1-2-3. $149.95. Palo Alto Software, 2641 Columbia St., Eugene, OR 97403. 800-229-7526 or 503-683-6162. (May '90)

SBT Database Accounting Library: Series Six Plus ⭐⭐⭐⭐

The multiuser SBT Database Accounting Library is based on the FoxBase+ engine. Very fast. Has 16 integrated modules. Can support up to 99 companies with as many as 999 departments each. Three different types of budgets can be generated and tracked. Holds 24-month customer and 36-month item histories. Version 3.0 reviewed. Version 6.35 shipping. Requires Mac Plus or later, 2 MB of RAM, and a hard drive. $695 per module. SBT Corp., One Harbor Dr., Sausalito, CA 94965. 415-331-9900. (May '90)

Service Industry Accounting ⭐⭐⭐

Service Industry Accounting is aimed at small service and manufacturing businesses. Has excellent security and good reporting abilities. Good use of Mac interface. Includes an inventory system and job costing for manufacturers. Version 5.38 reviewed. Version 5.73 shipping. Requires Macintosh Plus or later; hard drive recommended. $395. Brown-Wagh Publishing, 130D Knowles Dr., Los Gatos, CA 95030. 800-451-0900 or 408-378-3838. (May '90)

TimeMinder ⭐⭐⭐⭐

TimeMinder is an application for analysis and a DA for recording data. Each client's time slips are stored in separate files, which is a drawback. Batch entry is easy, however. The package's interface needs polishing, and layout isn't WYSIWYG, making reporting unnecessarily difficult. Version 2.1.6 reviewed. Version 2.5 shipping. Requires Macintosh Plus or later and System 6.05 or later; hard drive recommended. $299. Aatrix Software, Inc., 523 N. Washington Ave., Grand Forks, ND 58203. 800-426-0854 or 701-746-6801. (Apr '90)

Timeslips III ⭐⭐⭐⭐

Timeslips III is for professionals who bill by the hour. Powerful and flexible despite awkward interface and setup. Works as an application for analysis and reporting and as a DA for recording or entering data. Batch entry is easy, and most descriptions can be customized. Excellent documentation and on-line help. Wide variety of billable items. Stopwatch feature for time-based activities. Version 2.1 reviewed. Requires Macintosh Plus or later with System 6.03 or later; hard drive recommended. $299.95; 5-user version, $699.95. Timeslips Corp., 239 Western Ave., Essex, MA 01929. 800-285-0999 or 508-768-6100. (Oct '92) ★ '88 Eddy

WealthBuilder ⭐⭐⭐⭐

WealthBuilder is an easy-to-use financial planner that's a useful tool for knowledgeable long-term investors. Developed by *Money Magazine*. Includes a comprehensive securities database. Lacks password protection and day-to-day money-management functions. Database can be updated with additional entries. Inappropriate for stock-market neophytes. An on-line link to financial data is available. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, System 6.05 or later, and a hard drive. $169.95. Reality Technologies, 3624 Market St., Philadelphia, PA 19104. 800-346-2024 or 215-387-6055. (Sept '91) ★ '90 Eddy

WOS Fund Accounting ⭐⭐⭐

WOS Fund Accounting is a true multiuser system designed to meet the unique needs of government and nonprofit agencies. Contains general-ledger, payroll, purchase-order/voucher, and accounts-receivable modules. Can handle multiple-fund accounting and multiple-year adjustments. Meets most federal reporting requirements. Version 1.5 reviewed. Version 3.3 shipping. Requires Mac Plus or later and a hard drive. $4,995. WOS Fund Accounting, Inc. (Farallon), 1321 Wakarusa Dr., Ste. 2061, Lawrence, KS 66049. 913-843-8150. (May '90)

GENERAL HARDWARE & ACCESSORIES

CasioLink for the Macintosh ⭐⭐⭐⭐½

The CasioLink is a hardware/software package that links the popular Casio BOSS series of electronic organizers to a Mac. The software is a bit limited and clunky, but it works. Can import and export to text files and HyperCard stacks but has some trouble importing from stacks. Version 1.01 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and Casio BOSS. $129.95. Casio, Inc., 570 Mount Pleasant Ave., Dover, NJ 07801. 201-361-5400. (May '90)

CleanPath Computer-Controlled Maintenance Kit ⭐⭐⭐

The CleanPath Computer-Controlled Maintenance Kit is a collection of tools and software for cleaning your screen, keyboard, floppy-disk drive, and dot-matrix printer (print head and platen). Includes special cleaning fluids, wipes, swabs, and two drive-cleaning disks. The high-quality cleaning materials are easy to use and effective. Software tells you when to use the cleaning tools. On-screen instruction sheets for each of the kit's elements. Not computer-controlled. $59.95. Discwasher, Inc., 2950 Lake Enna Rd., Lake Mary, FL 32746. 800-325-0573 or 407-333-8900. (July '90)

Colby SE/30 ⭐⭐⭐½

This powerful portable computer has hardware contrast and brightness controls for better viewing. Battery life up to three hours. Can be upgraded with optional hard disk drives and 8 MB of RAM. Not meant to be used in transit. System suffers a tiny bit from annoying screen flicker. Floppy-only version, $6,699. Colby Systems, 2991 Alexis Dr., Palo Alto, CA 94304.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

415-941-9090. (Sept '90)

Ergotron Workstation ⚡⚡⚡⚡

The Ergotron Workstation is one of the best, most versatile computer workstations available. This freestanding or wall-mountable heavy steel unit includes a high shelf for your Mac II and a movable support arm for your monitor. Comes in a variety of configurations. $1,000 and up, direct. Ergotron, Inc., 3450 Yankee Dr., Ste. 100, Eagan, MN 55121. 800-888-8458 or 612-452-8135. (Mar '89)

Hewlett-Packard 48SX Calculator ⚡⚡⚡½

The 48SX is a powerful and versatile calculator. It supports file transfers with Macs, using the Mac Kermit program. The calculator includes a powerful graphical equation editor and a matrix editor that resembles a spreadsheet program. Programs and variables are stored by name in a directory. The calculator uses sound output, a real-time clock with alarms, and infrared and RS-232 serial ports as well as RAM and ROM expansion ports. The Serial Interface Kit adds considerable power but could use improvements. $350; Serial Interface Kit, $59.95. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Mar '91)

KeyLock ⚡⚡⚡½

The KeyLock is a security package that has a piece of hardware that's inserted into the floppy-disk slot (and can be physically locked) and an INIT that requires the correct password during startup. Includes a DA that darkens the screen and requires the same password. INIT and DA portion are easily bypassed. $129.95. VikingTech, 533 ½ Via De La Valle, Ste. E, Solana Beach, CA 92075. 619-792-1385. (July '90)

MacTable ⚡⚡⚡⚡⚡

The MacTable is an elegant Danish-style worktable that holds a Mac and a printer with room to spare. The table, 30 inches deep by 58 inches wide, is made of particleboard and must be assembled. Cabinet is optional. 46-inch table, $329; 58-inch table, $359; cabinet, $159 (all direct prices). ScanCo, P.O. Box 3217, Redmond, WA 98073. 800-722-6263 or 206-481-5434. (June '90)

Mobile Computer 400 ⚡⚡⚡⚡

The Mobile Computer 400 is a portable computer small enough to carry, and it's relatively inexpensive. It has a proprietary operating system but uses a pull-down menu and a pointer that's controlled by a built-in touch pad — reasonably intuitive for Mac owners. $695. Psion, Inc., 555 Virginia Rd., Ste. 5CONC, Concord, MA 01742. 800-628-7949 or 508-371-0310. (July '90)

Outbound Notebook 2030 ⚡⚡⚡⚡½

Fast, light, and upgradable, the Notebook 2030 gives Apple's PowerBook 140 a serious run for its money. Unlike earlier Outbound laptops, the Notebook has up-to-date, standard Mac ROM chips preinstalled. Upgrade path for the Notebook 2000 series includes faster CPUs, math coprocessor, and greater hard-drive capacities. LCD display is larger than Apple's but not as sharp and fast. Doesn't support color video. Has built-in microphone, all the usual Mac ports (including ADB and standard 25-pin SCSI), and Outbound's improved TrackBar input device. Doesn't accommodate internal modem. With 4 MB of RAM and 40-MB hard drive, $1,999 direct; optional 68881 coprocessor, $129. Outbound Systems, Inc., 4840 Pearl E. Cir., Boulder, CO 80301. 800-444-4607 or 303-786-9200. (Feb '92)

Portable Attache ⚡⚡⚡⚡

The Portable Attache is an attractive alternative to the Mac Portable case. Manufactured by Zero Halliburton, it's made of aluminum, is approximately the same size as the Mac Portable case, and comes with a handy accessory case (the perfect size for a Diconix printer) that fits inside. The file pocket in the Portable Attache detaches and becomes a portfolio. It's not suitable for checking on an airline, but the Portable Attache/Transport case (also available exclusively from EDC) is. Requires Macintosh Portable. $329.95; Portable Attache/Transport case, $369.95. EDC, 13101 Washington Blvd., Ste. 110, Los Angeles, CA 90066. 310-578-9712. (Sept '90)

Graphics & Design

1001 Fun Posters and More ⚡⚡½

This collection of templates for posters, fax cover sheets, memos, signs, and notes is useful for special occasions at work, home, or school. Many templates are corny, even sophomoric. Contains some good material, and all templates are easily customized. $79. Newslettermen, 11500 Hart St., North Hollywood, CA 91605. 818-503-8016. (Dec '92)

BannerMania ⚡⚡⚡½

BannerMania is a specialty graphics program that lets you print banners, bumper stickers, signs, posters, and T-shirt designs. Includes 19 custom outline fonts that scale and print at any size. Also imports Type 1 fonts. Works with laser printers and makes good use of ImageWriter's limited color capabilities. Offers variety of special effects for text manipulation, including the awesome Transmogrify command. Limited graphics import/export capabilities. Excellent manual. Version 1.0 reviewed. Requires Macintosh Plus or later and System 5.0 or later. $59.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Oct '91)

CameraMan ⚡⚡⚡

CameraMan captures screens and on-screen actions and saves the resulting graphics as a QuickTime sequence, a PICS animation, or a series of PICT files. Captures 8-bit and 4-bit color as well as black-and-white images. Maximum 8-bit color capture speed is generally less than 4.5 frames per second even on the fastest Mac-II-series machines. Can capture an entire screen or a designated selection. Doesn't record sound, so QuickTime movies require a separate program to mix in digital audio. Version 1.0 reviewed. Requires QuickTime. $149. Vision Software, 3160 De La Cruz Blvd., Ste. 104, Santa Clara, CA 95054. 408-748-8411. (Sept '92)

Capture ⚡⚡⚡⚡

Capture is a reliable screen-capture utility. It can capture full or partial screens either to the Clipboard or to a PICT file. Supports 8-bit and 32-bit color. Capture may have to be renamed on your Mac to avoid INIT conflicts. Version 2.0 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $129.95. Mainstay, 5311-B Derry Ave., Agoura Hills, CA 91301. 818-991-6540. (Jan '90)

Cheshire ⚡⚡⚡½

Cheshire is an INIT that lets you copy and paste tab-delimited data into simple charts, which can be placed in a document. Many chart types are possible, typeface styles can be varied, and the charts can be modified if placed into drawing programs such as MacDraw II or DeskDraw. The only programs from which this handy utility can extract data are MacWrite II, Word, MacDraw II, and PageMaker. Version 1.0 reviewed. Requires Macintosh Plus or later. $125. Abbott Systems, 62 Mountain Rd., Pleasantville, NY 10570. 800-552-9157 or 914-747-4171. (Feb '91)

DeskPaint and DeskDraw ⚡⚡½

DeskPaint and DeskDraw are full-featured, 24-bit color painting and drawing programs in DA form. They include flexible calibration options for vertical and horizontal rulers. Printer resolution can reach 4,000 dpi. DeskPaint has basic color controls and image-manipulating functions. Inadequate for professional artists. Version 3.08 reviewed. Requires Mac Plus or later, 2 MB of RAM, and a hard drive. $199. Zedcor, 4500 E. Speedway, Ste. 22, Tucson, AZ 85712. 800-482-4567 or 602-881-8101. (Dec '92)

MICE RATINGS ⚡ ⚡½ ⚡⚡ ⚡⚡½ ⚡⚡⚡ ⚡⚡⚡½ ⚡⚡⚡⚡ ⚡⚡⚡⚡½ ⚡⚡⚡⚡⚡



300 dpi color scan of an 8 x 10 transparency; scanned with the RealTech Scan 800 color scanner.

Keep this supplement handy

It includes a complete selection of products t make your life easier and your work more fun.

SCAN

One of the biggest advances in desktop publishing has been in the field of scanning, once something only a color separator could do. Now, affordable color scanners are for everyone!

We offer 600, 800, and 1850 dpi scanners that handle flat art, transparencies, or slides. Desktop scans are ideally suitable for finished output (in newsletters or low-end brochures) or for position only (in high-end four-color projects).

VIEW

Whether you need a high-resolution color monitor or a monochrome display, you'll find the right monitor...right here. Included in this supplement are dozens of monitors in all sizes (13" to 21"), and all levels of resolution (from 640 x 480 to 1152 x 870).



PRINT

Are you tired of waiting forever for less-than-perfect printouts? A great printer from Hardware That Fits is your answer!

Need speed? We offer several models, including our own RealTech Lasers that zip through even your most complicated documents with ease. *Need 11 x 1 capability?* It isn't expensive or hard to get anymore, now that the RealTech Laser 400 is at your service.

And for the ultimate in output, the color printers we offer will make beautiful mockups, knockout presentations and comps almost as good as the finished product.

ACCELERATE

The Mac you thought was so fast yesterday is the one you're waiting, waiting, *waiting* for today. If you do a lot of number-crunching or use lots of scanned images, you need a break!

A high-quality performance upgrade from Hardware That Fits will make projects fly, giving you more work time and less wasted time.

STORE

What in the Mac world is worse than lost, corrupted, or unreadable data? And what in the world is more important than backup? Hardware That Fits offers plenty of storage options to use for a primary drive or for backup. Our high-quality drives, removable storage media, and backup systems will keep your data safe and sound, so you can work, not worry.

CONNECT

The correct network makes all the difference between a productive team and a slow-moving traffic jam. Hardware That Fits has networking equipment for everyone, whether you're part of a small workgroup or a huge enterprise. We'll keep you connected with the best in routers, hubs, bridges, and modems...and the best advice on how to use them.

We want to help you solve your computing problems. *We're not interested in making a quick buck.*

Sometimes we even have to talk a customer out of buying more equipment than he or she needs. Because we believe in building relationships, not increasing our sales quotas.

Macintosh solutions you can really celebrate!

HARDWARE THAT FITS 1-800-364-FITS *Toll-free in the U.S. & Canada*

Meet a few of the friendly folks who'd like to be your Mac solutions partner...

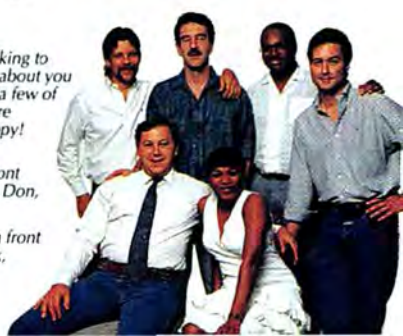




You don't have to worry about talking to someone who doesn't really care about you and your order. Our sales teams (a few of our associates are shown here) are anxious to make sure you're happy!

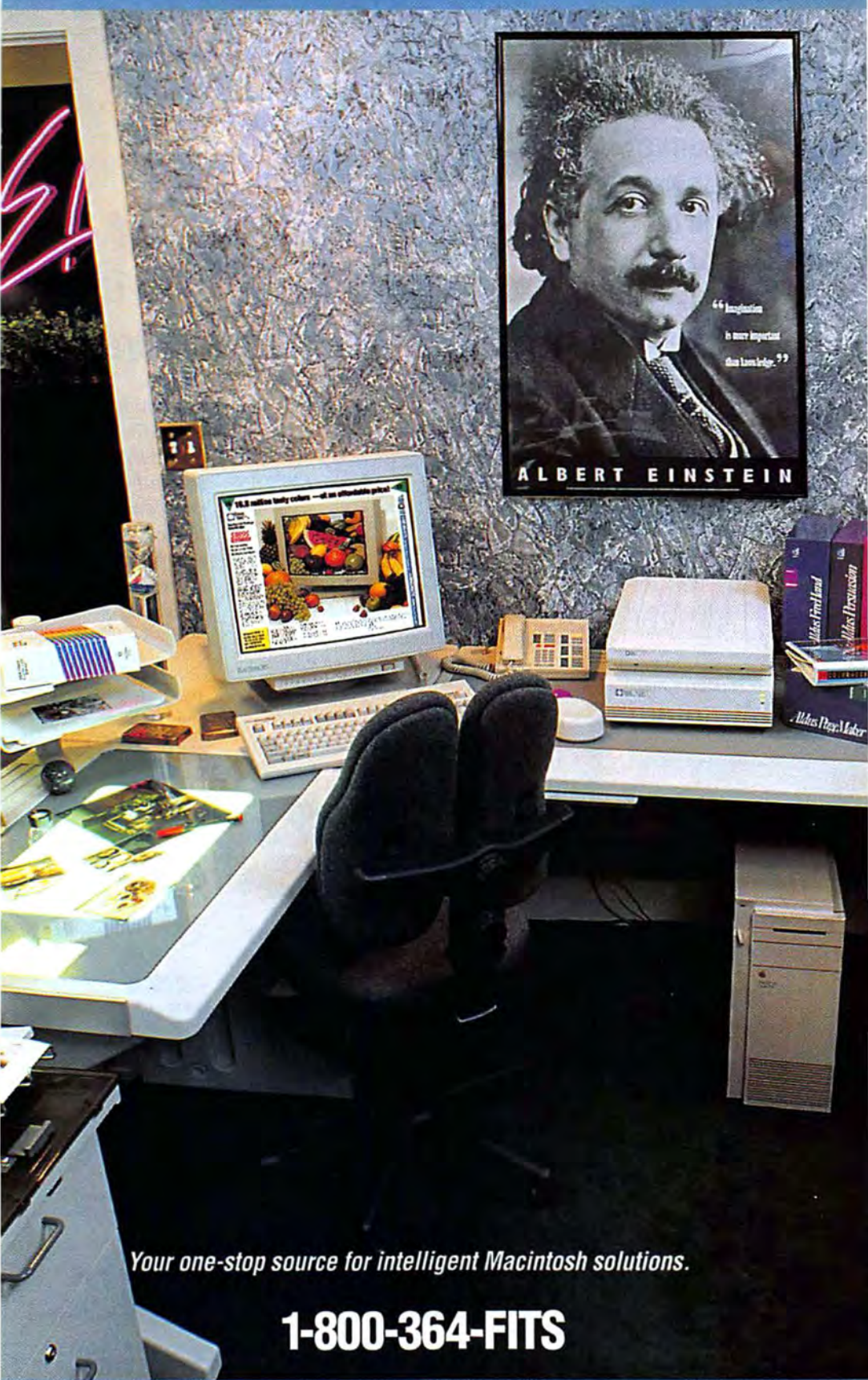
Group at left, clockwise from front row: Barbara, Gina, Dona, Jim, Don, Mike, Cecil.

Group at right, clockwise from front row: Daria, Jon, Michael, Chuck, James, Ed.



ADVERTISING SUPPLEMENT

HARDWARE THAT FITS



Your one-stop source for intelligent Macintosh solutions.

1-800-364-FITS

1-409-760-2400

Fax: 1-409-539-4141

2



Réal
(President)

WE WANT TO BE YOUR MACINTOSH SOLUTIONS PARTNER (WE'RE REALLY NOT INTERESTED IN A ONE-SHOT SALE)

In these difficult economic times, value is the most important criteria for making a purchasing decision; that's why our business is still growing while others are foundering. We're in our eighth year of providing the best value in the Mac market. Sure, there are some companies that can give you a better price on a particular product... but will they stand behind it (and by you...and will they even still be in business)? We will. We're a subsidiary of a financially-sound public company, and have been members of the Better Business Bureau since 1987. We offer you the best overall value, customer service, technical support, and financing options because we're interested in being your total solutions partner...and because we'll be around to help you.

Réal Provencher

Welcome to your one-stop source for Macintosh solutions:

a complete selection of products to make your life easier & your work more fun.

During the past seven years, we've become known as America's one-stop source for custom solutions. Why? Because our friendly sales and customer service teams have always been more interested in solving your computing challenges than in making a quick buck. From time to time, they have to talk a customer out of buying more equipment than they really need. That's because we believe in building relationships and providing total solutions...and that's why we're America's largest mail order seller of Mac hardware.

SOLUTION: Customer service

When you order from us, you get computer experts, not clerks!

All of our salespeople have a minimum of three years of computer experience. They're trained in Apple's intensive program, as well as our own. They're ready to help you (with a smile!) both before and after the sale.

SOLUTION: Tech support

Best tech support anywhere. And it's toll-free: 1-800-364-MACS.

Our tech team is well trained, well informed, and well known for their ability to solve customers' problems with a minimum of inconvenience to the customer.

SOLUTION: Financing options

Business leasing available: call toll-free 1-800-364-LESS.

We've made it easier than ever to enjoy our productivity-enhancing products by offering five different leasing programs. Choose the one best tailored to your company's needs! Call us toll free for more information.

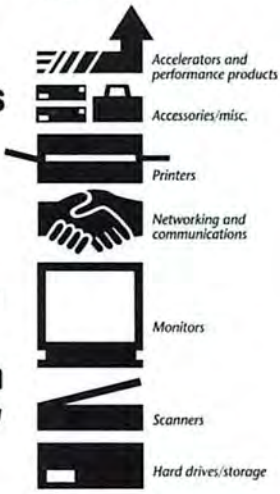
SOLUTION: 100% satisfaction

OUR FAMOUS GUARANTEE: If you don't like it, we'll buy it back.

If you're not 100% satisfied, call for your RMA number and return the product within 30 days of the ship date. We'll refund your purchase price (minus consumables for printers).

Are you looking for a specific product, and don't have time to read this entire supplement? Flip through the pages and watch for the corresponding icon.

Of course, we'd much prefer it if you would read this supplement cover to cover; there are dozens of products that would help you increase your productivity. But if you're short of time, just keep your eye on the icons on the right-hand pages. If you're looking for a monitor, and the monitor icon is black...that's your page!



RealTech and the RealTech logo are trademarks of MBSI. All other trademarks used in this supplement are the properties of their respective owners. Hardware That Fits is located at 610 S. Frazier, Conroe, TX 77301. All prices are subject to change without notice. ©1992.

1-800-364-FITS

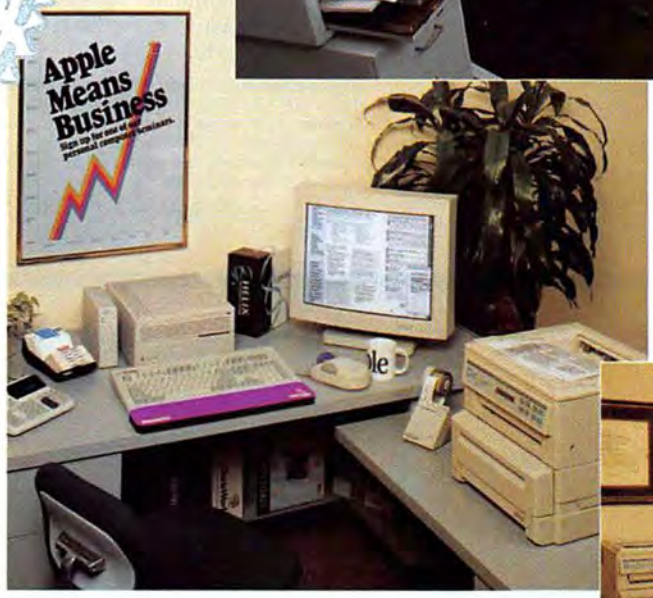
Toll-free in the U.S. & Canada, too
HOURS: *8 am to 7 pm CST*

HIGH-END GRAPHICS SOLUTIONS

The latest innovations in pre-press desktop technology (scanning through proofing)

PAGES 4-13





POWERBOOK SOLUTIONS

Macintosh PowerBooks & accessories for office or travel

PAGES 38-39



BUSINESS SOLUTIONS

Monitors and printers for productive, cost-effective workstations

PAGES 42-48

DESKTOP PUBLISHING SOLUTIONS

Intermediate graphic and multimedia solutions

PAGES 14-21





Jon is always enthusiastic about our products, our quality, and our service. He's thrilled to be part of a company that's becoming the mail order Macintosh equivalent of the popular consumer catalog "Lands' End."

STORAGE SOLUTIONS

PAGES 22-23, 34-35

NETWORKING/COMMUNICATIONS SOLUTIONS

PAGES 30-33

ACCELERATORS/PERFORMANCE SOLUTIONS

PAGES 40-41

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

4



IT DOESN'T TAKE A GENIUS TO SEE

the quantum leaps made in electronic publishing in the last five years. When we first started producing our ads, we typeset on the Mac...but were still encumbered by artboards, keylines, acetate overlays and that messy, messy wax. Not anymore! The office shown at right is where this supplement was actually produced. (By the way, if you're interested in purchasing a graphics workstation and would like to see the evolution of some of these pages, just let us know. We'll send you a description outlining each stage of production.)

A RasterOps CorrectPrint 300 (dye sublimation printer)
Lease: $203/per mo. **$7395**

B RasterOps 20" Multi-Sync Color Trinitron Monitor
Lease: $78/per mo. **2859**

C Key Tronic MacPro Plus extended keyboard..... **139**

D RealTech Scan 800 w/Transparency Option
Lease: $49/per mo. **1794**

E Quadra 950

1 GB Fujitsu Drive
Lease: $54/per mo. **1959**

F RealTech Laser 400 (11x17 printer)
Lease: $88/per mo. **3195**

RasterOps 24 XLi video card..... **1999**

RasterOps CorrectColor Calibrator..... **2019**

Image Magic DSP (Digital Signal Processor) accelerates Adobe Photoshop filters by 200 to 964%)
Image Magic NuBus..... **769**
Image Magic FX/PDS..... **699**
Image Magic Quadra/PDS..... **699**

If you produce high quality, four-color brochures and publications, here's a system that really solves a lot of pre-press problems. Tired of making rough mockups to show positioning for transparencies? Weary of waiting for your DCS files from the color separator? The RealTech Scan 800 (with Transparency Option) lets you scan transparencies and slides so you can design the page with all your pictures in place from the beginning! Save time by printing first-draft copy in spreads on the RealTech Laser 400 ...and improve quality by checking traps and outlines on the RasterOps CorrectPrint 300.

High-end graphics system. *(Includes Quadra 950, 1 GB Fujitsu hard drive, RasterOps 20" Trinitron color monitor, RasterOps 24 XLi video card, and Key Tronic MacPro Plus extended keyboard. See individual pricing for scanner, color printer, etc.)*

Lease: $348/per mo. **$12,715**



Ask about our
LEASING PROGRAM
Toll-free information:
1-800-364-LESS

Intelligent solutions for desktop publishers, corporate art departments & graphic *designers!*



Anne goes for the RealTech Scan 800 in a BIG way! She thinks it's one of the best design tools on the graphics scene. (She loves the Color 350, too. See pages 12-13 and 20-21 for more information.)



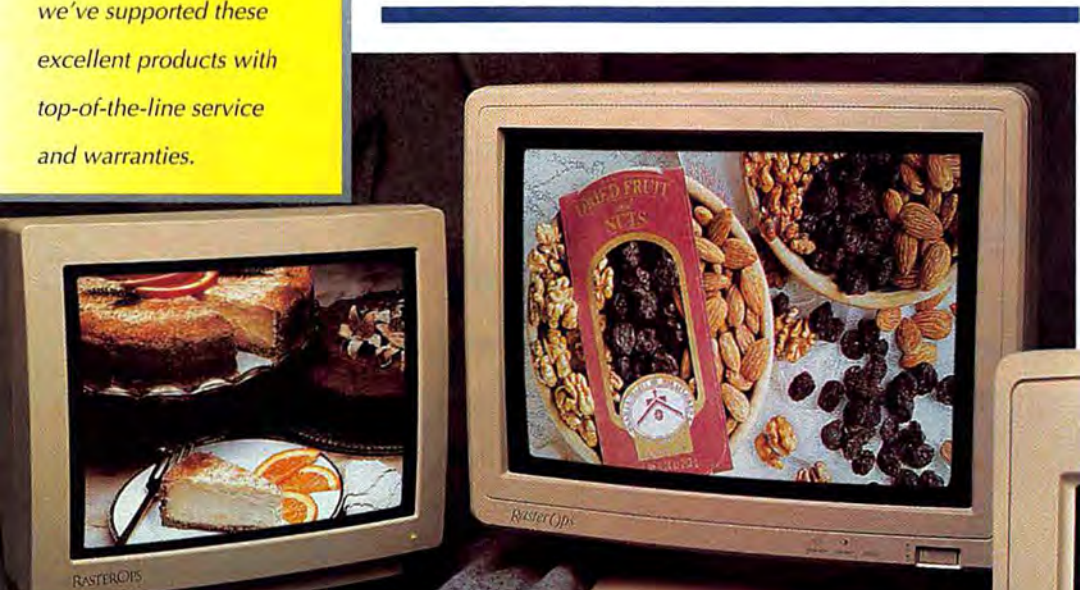
1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

6 RasterOps

We're an authorized RasterOps dealer...

for the past four years, we've supported these excellent products with top-of-the-line service and warranties.

The latest in 24-bit technology to complete your system.



RasterOps Sweet 16" Color Monitor

$1249

Lease price: $34/month

High-resolution display delivers color graphics and images with superior definition. Flicker-free screen reduces eyestrain; tilt-and-swivel base allows you to adjust the monitor to a comfortable angle. Displays up to 16.7 million colors; 624 x 832 resolution, 75 Hz refresh rate. The complete system combines the RasterOps Sweet 16 monitor and RealTech 8-bit video card (a single slot, graphics display adapter for the Macintosh II family of computers). An alternative bundle includes a RasterOps PaintBoard Li video card, which supports the Quadra series. Software support for the PaintBoard Li includes a system extension for controlling the on-board accelerator, hardware pan and zoom, extended desktop, and gamma selection.

Sweet 16 Monitor w/RealTech 8-bit Card
Lease: $43/per mo. **$1578**

Sweet 16 Monitor w/PaintBoard Li Card
Lease: $56/per mo. **2048**

RasterOps 21" Color Monitor

$2999

Lease price: $82/month

High-resolution, anti-glare screen makes extended viewing more comfortable for your eyes. Display controls allow you to customize display settings (depending on the graphics display adapter being used).

This large-screen color display supports scanning frequencies from 30-64 kHz horizontal and 50-120 Hz vertical, and a resolution of up to 1152 x 870 pixels. Dual input connectors enable it to be used with a variety of graphics display adapters, in a variety of environments. Tilt-and-swivel base for adjustable viewing angles. Bundled with the RasterOps 24XLi card, it displays up to 16.7 million colors with superior definition. Compatible with the Macintosh II and Quadra families of computers.

21" Color Monitor w/24XLi Card
Lease: $137/per mo. **$4998**

More monitors!

SEE PAGES 16-17, 24-25, 26-27, 36-37, AND 44-45 FOR MONITORS IN ALL SIZES AND PRICE RANGES.

"My experience in running large retail organizations for more than 16 years was the person at the top normally heard from customers only when things 'had not gone according to Hoyle' somewhere down the line. I would like to be the exception and bring to your attention my experiences of OUTSTANDING SERVICE from two of your employees during my recent purchase of a RealTech 19" monitor and RasterOps 24XLi card...(their) responsive service was a refreshing change."

— Stephen E. Snider

Name-brand color solutions at incredibly appetizing prices!

RasterOps 20" Trinitron Color Monitor

$2859

Lease price: $78/month

Multi-scan capability provides optimum resolution for nine factory preset modes; allows you to upgrade your display to a maximum resolution of 1280 x 1024 without changing your monitor. User-selectable display allows you to store up to 15 different display settings in memory. Non-reflective, flat screen and tilt-and-swivel base for optimum long-term working comfort. Up to 16.7 million colors; 75 Hz refresh rate.

20" Color Monitor w/RasterOps PaintBoard Li Card
Lease: $100/per mo. **$3658**



1-800-364-FITS
Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS
HOURS: *8 am to 7 pm CST*

8

Our Laser 400 printe

No more tiling! No

"...be forewarned:

PostScript-clone printers still have a long way to go before they can rival true Adobe PostScript printers."

Quote from MacUser September 1992 issue, "Personal PostScript Printers" by Bruce Fraser



So fast it will bring a smile to your face!

The RealTech Laser 400's high-performance Weitek RISC processor and ATM font rendering technology enable it to print complex documents 4 to 5 times faster than other non-RISC laser printers in its price range.

The RealTech Laser 400 uses a Fuji-Xerox printer engine that prints 15 pages per minute at top speed.

Based on Adobe PostScript® Level 2...

compatible with all current application software that supports the PostScript® language. It contains a number of performance, function and quality enhancements that save printing time and improve quality. In addition, PostScript® Level 2 offers new capabilities, including forms handling, graphic patterns support, and new half-tone algorithms.



Jeanne is thrilled that she doesn't have to fiddle around with taping pages together anymore!

More printers!

SEE PAGES 8-11, 20-21, 24-29, 46-47: NEC, SEIKO, TI, KODAK, RASTEROPS, KODAK, REALTECH.

:an make YOU happy.
nore taped pages!

★★★★ — MACWORLD MAGAZINE, September 1992

$3195

Lease price: $88/month

RealTech™

The only 11x17 printer with Adobe PostScript® Level 2 for less than $3500.

- *High-speed printing (15 ppm, letter size)*
- *8 ppm (tabloid size)*
- *2 paper trays included!*
- *SCSI port*
- *Full page 11x17 printing**

The ideal networking printer. The RealTech Laser 400's three interface ports (Appletalk® RS-422, IBM PC parallel, and RS-232-C) can be used simultaneously. It can be assigned either PostScript® or LaserJet II emulation, making it the ideal network printer. A Hewlett Packard LaserJet Series II emulation allows use with non-PostScript applications software. The perfect solution for multi-user printing environments.

Prints full-page 11x17 documents. No more tiling to get the full image area, or taping letter-size pages together! The RealTech Laser 400 is the optimum tabloid printer. *Note: Prints to within 5 mm of the edge.

SCSI port. The standard configuration includes a SCSI port and 4 Mb of RAM, upgradable to 16.



1-800-364-FITS Toll-free in the U.S. & Canada, too

HARDWARE

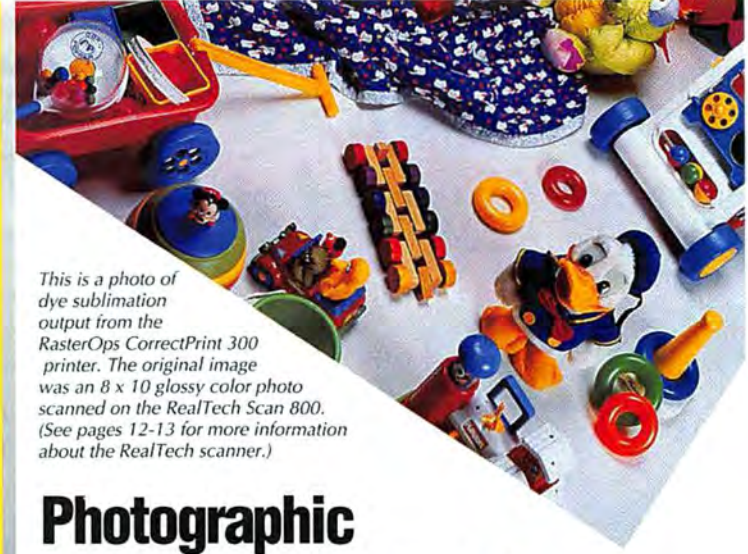
10



Daria
(Sales)

WHY A DYE SUBLIMATION PRINTER IS AN EXCELLENT INVESTMENT FOR ANYONE IN THE GRAPHICS FIELD

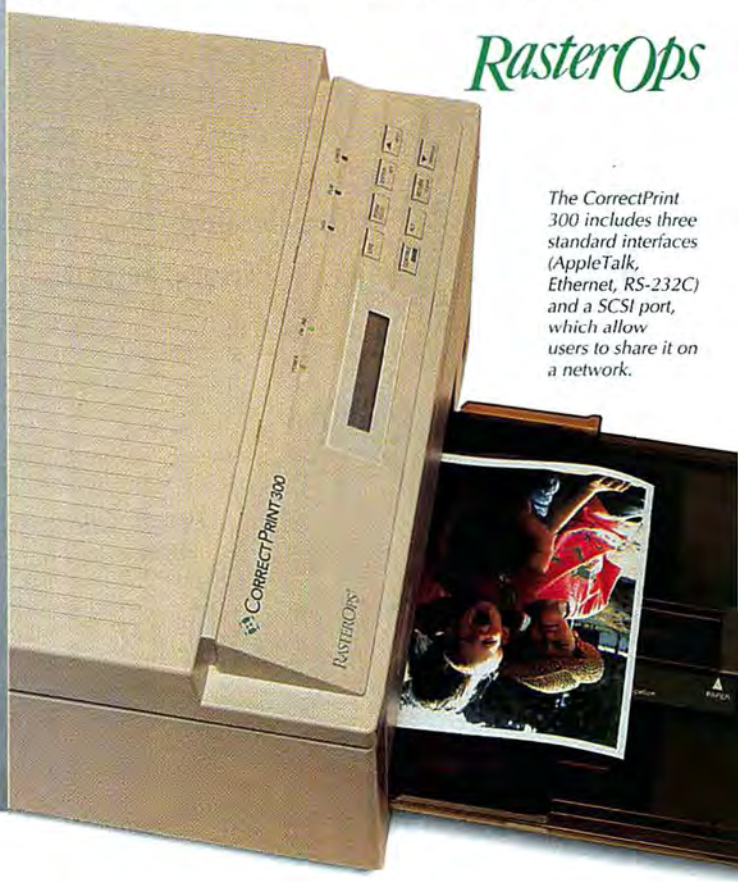
Does your company have to buy more than one set of traditional color proofs for a print project (at $35-100 each)? A dye sublimation printer can eliminate a lot of the hassle and cost of color proofing; you can see what the final result will look like without running four sets of film each time to create the proof. The RasterOps CorrectPrint 300 offers the highest-quality output available in desktop color proofing technology. At a cost of less than $2 per proof, it's a wise purchase.



This is a photo of dye sublimation output from the RasterOps CorrectPrint 300 printer. The original image was an 8 x 10 glossy color photo scanned on the RealTech Scan 800. (See pages 12-13 for more information about the RealTech scanner.)

Photographic quality dye sublimation proofs for under $2 a page!

RasterOps



The CorrectPrint 300 includes three standard interfaces (AppleTalk, Ethernet, RS-232C) and a SCSI port, which allow users to share it on a network.

$7395

Lease: $203/mo.

RasterOps CorrectPrint 300 Dye Sublimation Printer

Uses a four color (CMYK) dye-sublimation thermal printing process at 300 dots per inch. The result is a continuous-tone print that resembles photographic-quality output. The CorrectPrint 300 prints on special sheet-fed paper or transparencies, not on rolls. It uses a RISC controller with JPEG decompression capability, and comes with 0 Mb RAM. (12 Mb RAM is required; it's upgradable to 36 Mb.)

The CorrectPrint 300 is Adobe PostScript® language compatible, and includes three standard interfaces: AppleTalk, Ethernet (two Ethernet ports—thick and twisted pair), RS-232C, plus a SCSI port, allowing users to share the CorrectPrint 300 among Macs, PCs, workstations, or a network.

Includes 35 resident fonts.

Ask about our

LEASING PROGRAM

Toll-free information:

1-800-364-LESS

Affordable color printing solutions.

Unparalleled quality for high-end comps and presentations, or for low-cost, pre-press color proofs.

SII
Seiko Instruments



$4495
Lease: $123/mo.

- *Prints on plain laser paper*
- *Adobe PostScript® compatible*
- *Perfect for single users or small work groups*

Letter-size color output at the price of high-end black and white.

Seiko Instruments Personal ColorPoint PS

Prints full-bleed comps on plain laser paper or transparency film. B4 page size allows the printed image to be larger than standard letter size (up to 8.53" x 11.93"). 300 dpi color thermal printer uses 16 MHz RISC processor. 6 Mb RAM standard, upgradable to 10 or 22 Mb.

Adobe PostScript® language compatible. Download, process and print images simultaneously; the Personal ColorPoint PS has multiple frame buffers. Includes three standard interfaces: AppleTalk, Centronics, and RS-232, plus a SCSI port, allowing users to share the ColorPoint among Macs, PCs, workstations, or a network.

The Personal ColorPoint PS continuously polls all interfaces and re-configures automatically to receive incoming data.

Includes 39 resident fonts.



Don and Sharla, like everyone at Hardware That Fits, enjoy testing new products. They're happy to be able to offer such high-quality color output to customers!

11

1-800-364-FITS Toll-free in the U.S. & Canada, too

HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

12 The RealTech Scan 800.

The ideal color solution for scanning flat art AND transparencies.



$1299

Lease price: $36/month

Real Tech

At last...quality you can celebrate!

(You can actually use the separations for printing. We did.)

Color scan — 8 x 10 matte finish photo



Grayscale scan — 5 x 7 matte finish photo



- *24-bit color*
- *8-bit grayscale*
- *800 dpi*
- *200 brightness/contrast levels*
- *fast scanning speed (9.1 seconds at 300 dpi for black & white or grayscale; 75 seconds for color)*
- *gamma-correction and color calibration software included*

Examples above and at bottom of page were scanned by an independent service bureau at the default settings. The color scan above was adjusted with ScanMatch color calibration software, and color-corrected with Adobe Photoshop. The grayscale scan is 8-bit (256 shades of gray).



Transparency Option (shown open, below) is sold separately.

Scans in 24-bit color, 8-bit grayscale or black & white.

Scanning speed is 9.1 seconds at 300 dpi (black and white or gray scale), and 75 seconds for color scanning.

Transparency Option available for scanning transparencies and negatives!

Our Transparency Option lets you scan slides, transparencies, film, or negatives. Exposure time is adjustable for scanning dark film.

Gamma-correction and Savitar's ScanMatch color-calibration software are included.

The RealTech Scan 800 features gamma-correction, which lets you adjust contrast and brightness without losing details in highlight and shadow areas.

ScanMatch color calibration software (included) adjusts scan files so colors are true when displayed on your monitor.

FREE! SCANMATCH COLOR CALIBRATION SOFTWARE *($199 RETAIL VALUE!)* IS INCLUDED WITH EVERY REALTECH SCAN 800.

RealTech Scan 800
Street price: $1299



800 dpi B/W scan (enlarged to show detail)

Microtek 600ZS
Street price: $1299



600 dpi B/W scan (enlarged to show detail)

Howtek Scanmaster 3+
Street price: $7499



1200 dpi B/W scan (enlarged to show detail)



800 dpi color scan — 8 x 10 transparency

Do you need "position only" scans for comps, or mid-range separations for printing newsletters and flyers? The RealTech Scan 800 is your solution!*

■ ***You don't have to buy two separate scanners to meet your need to scan both reflective and transparent artwork and photos.*** The RealTech Scan 800 is one of only a very few scanners that offer an optional attachment for scanning transparencies, slides, and film.

■ ***You can actually improve image quality with gamma-correction.*** When your original document isn't vivid, you can use gamma-correction (in real time) to improve the image quality. Very few scanners feature gamma-correction — yet it's standard on the RealTech Scan 800!



■ ***25 black and white halftone patterns!*** Some scanners only offer four.

■ ***More brightness, contrast & resolution levels than other leading scanners.***

■ ***Color calibration software included FREE!*** The RealTech Scan 800 comes with ScanMatch color calibration software (FREE)...and it's available with Adobe Photoshop or ColorAccess from Barneyscan at an additional cost.

■ ***It's fast!*** It scans black and white documents in 9.1 seconds; color, in 75 seconds.

* *The balloon picture shown above originated as an 8 x 10 color transparency. (Shown directly at left is a color Polaroid of the same photo.) The transparency was scanned with the Transparency Option on the RealTech Scan 800, adjusted with ScanMatch color calibration software, and color-corrected with Adobe Photoshop. Color separations were produced with ColorAccess software from Barneyscan. Judge for yourself—is the quality of this separation good enough for your company newsletter or flyer?*

RealTech Scan 800	***$1299***
	Lease: $36/per mo.
RealTech Scan 800 w/ Transparency Option	***1794***
	Lease: $49/per mo.
RealTech Scan 800 w/ Adobe Photoshop	***1499***
	Lease: $41/per mo.

1-800-364-FITS *Toll-free in the U.S. & Canada, too* **HARDWARE THAT FITS** **HOURS: 8 am to 7 pm CST**

14



Our graphic & multi
help you stage a to

Everything you need to set up or expand a complete graphic or multi-media workstation.

Now it's easy to capture full-motion video on your Mac!

VideoSpigot™ from SuperMac™ is an affordable new digital video system. It captures full-motion video in 24-bit color and converts it to Apple's QuickTime file format (which can be stored on hard disk, optical disk, or removable cartridge). Plays back at rates of up to 30 frames per second, depending on which Mac you're using.

Once your video is converted, you can cut, edit, copy and paste it into your own multi-media productions, or into word-processing or graphics documents. Designed for Mac IIsi and LC systems, Quadras, and all NuBus Macintosh II systems.

VideoSpigot LC *$249*
VideoSpigot IIsi or NuBus... *329/369*
VideoSpigot Pro *1079*
Spigot & Sound *479*
Spigot & Sound Pro *1159*

A RealTech Color 350 printer w/10 Mb RAM
Lease: $165/per mo... *$5995*

B Quadra 700

C RealTech 19" Trinitron
Lease: $52/per mo..... *1895*

D Key Tronic MacPro Plus extended keyboard *139*

E 425 Mb Fujitsu hard drive
Lease: $27/per mo..... *999*

F Wacom Tablet — 12 x 18
Lease: $28/per mo..... *1029*

G Microtek Scanmaker II color scanner
Lease: $26/per mo..... *949*

Video cards available for this system:
RasterOps MediaTime..... *$1599*
RasterOps PaintBoard Li..... *799*
Thunderstorm..... *829*

Ask about our
LEASING PROGRAM
Toll-free information:
1-800-364-LESS



"In the graphic design business, the desktop publishing hardware is changing so rapidly that it can be confusing what to buy — Jon's knowledgeable and friendly help guided me toward the right decision for my company."

— Elaine Kropveld
EKlectic Images

nedia solutions performance.

Do you create company training films...video presentations...newsletters and brochures? We understand the equipment requirements of the creative Mac user who needs to combine sound, motion, graphics, and words. We can suggest combinations of Mac products that will help you design projects to keep you in the spotlight!

Graphic/multi-media system. *(Includes Quadra 700, 425 Mb hard drive, RealTech 19" Trinitron color monitor, RasterOps PaintBoard Li video card, and Key Tronic MacPro Plus extended keyboard. See individual pricing for scanner, color printer, etc.)*

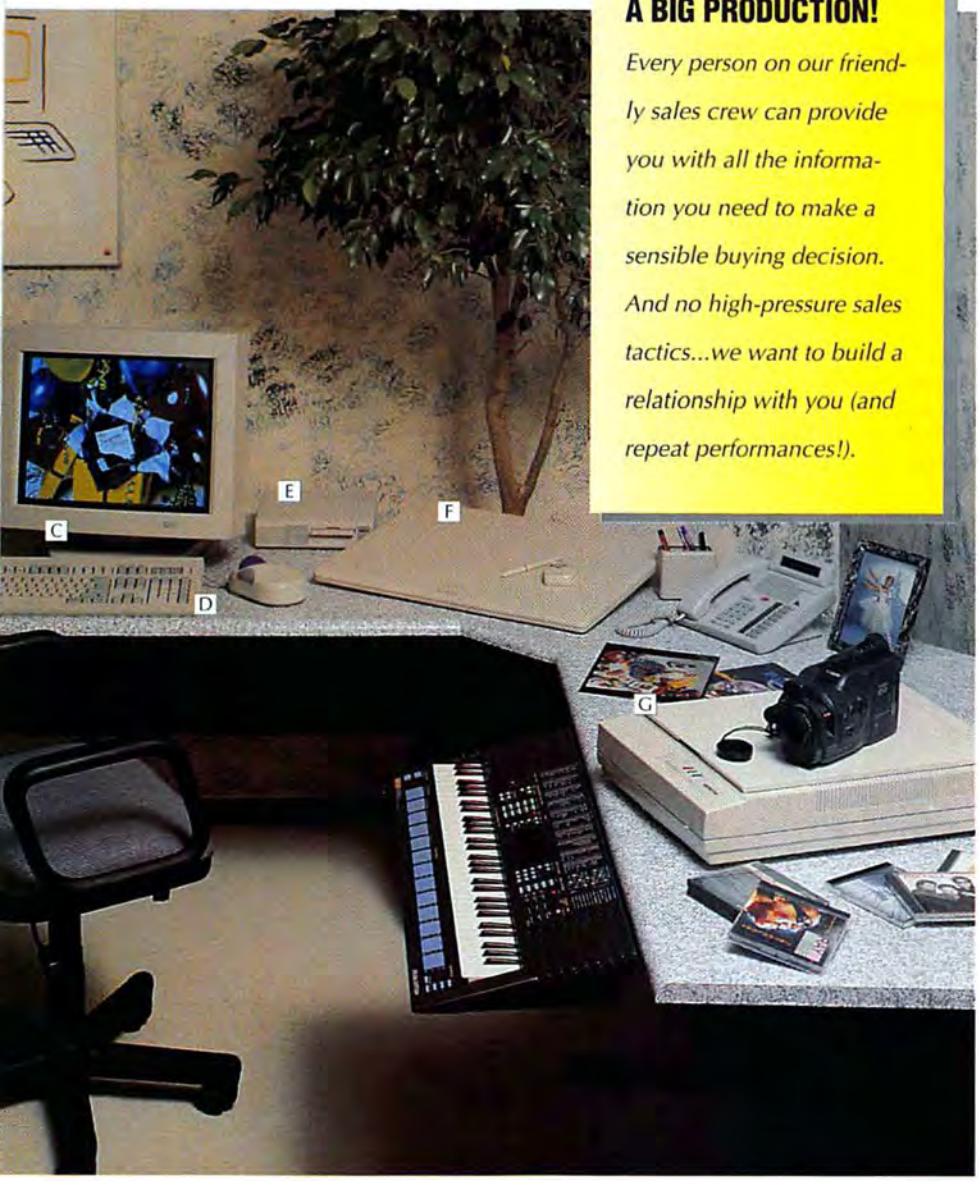
Lease: $226/per mo. **$8255**



Barbara and James—two of our talented, well-rehearsed sales crew.

EXPANDING YOUR GRAPHICS STATION DOESN'T HAVE TO BE A BIG PRODUCTION!

Every person on our friendly sales crew can provide you with all the information you need to make a sensible buying decision. And no high-pressure sales tactics...we want to build a relationship with you (and repeat performances!).



"When you work in a fast-paced design firm with yesterday deadlines, it is extremely important for me to receive the information quickly. Never once have I been put on hold while inquiring about products and technical issues. Not any of this call you back later nonsense. And it is always nice to have a friendly person on the other end of the line...even after I receive my order, you are still there to assist me. Who could ask for more?"

— Donna Whitlow, Desktop Publishing Specialist, Larnish & Associates Inc.

15

1-800-364-FITS *Toll-free in the U.S. & Canada, too* HARDWARE THAT FITS HOURS: *8 am to 7 pm CS*

16 16.8 million tasty colors

Real Tech™

RealTech 19" Trinitron® Color Monitor

$1895

Lease price: $52/month

- *Auto-syncing*
- *24- or 8-bit color*
- *Multi-mode display*

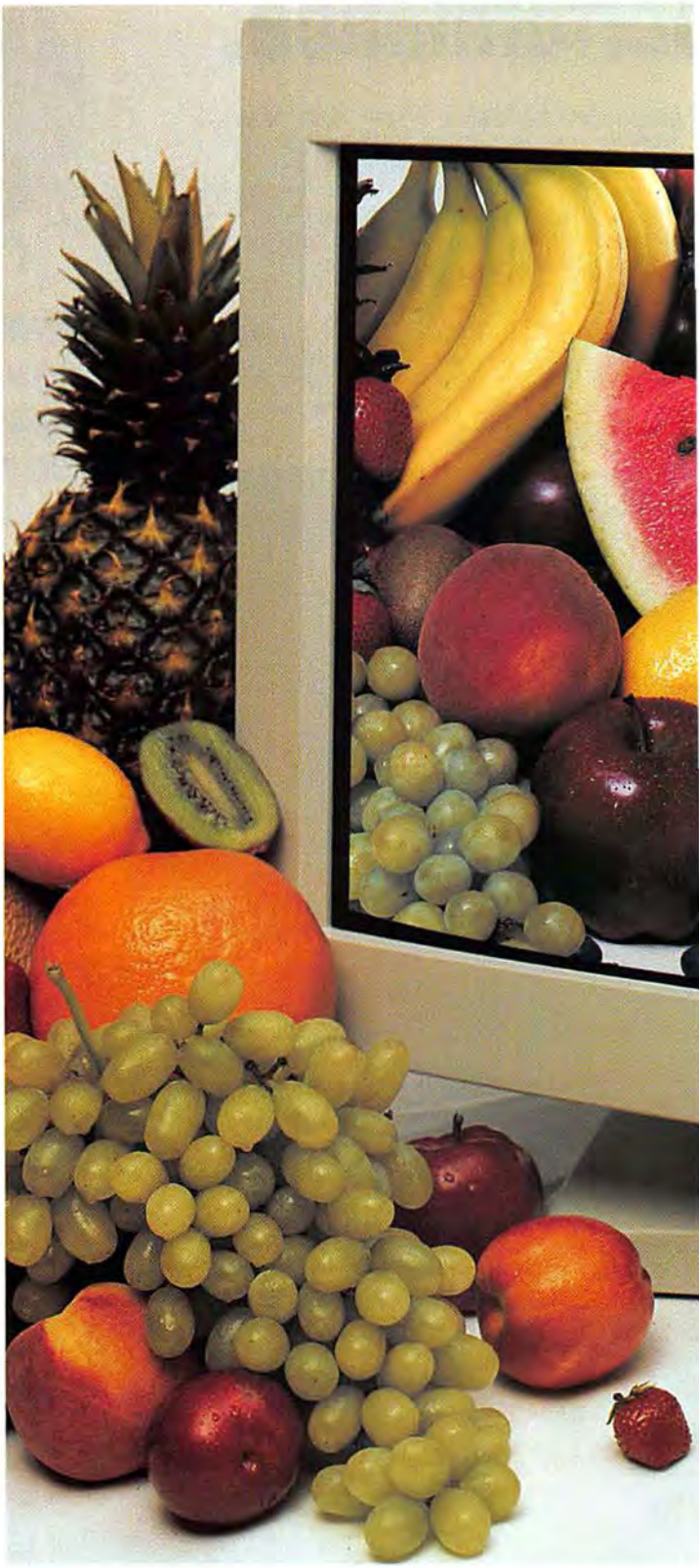
View 16.8 million colors at 72 dpi! 1024 x 768 standard resolution; will auto-sync to 640 x 480, 832 x 624, 1024 x 768, and 1152 x 870 (two full pages of brilliant color!).

Uses a Trinitron® tube from Sony. Multi-level bit depth support provides accurate screen display for all applications. Will interface with Quadras, and with popular video cards from RasterOps, Radius, and SuperMac.

The RealTech Trinitron **24-bit color system** rapidly produces photorealistic quality images at maximum speeds through NuBus block transfer, which enables large blocks of information to be moved across the NuBus at peak transfer rates.

It combines display and graphics acceleration capabilities in one slot, and is designed specifically for the Macintosh II family of computers.

Our **24-bit system** includes hardware pan-zoom and extended desktop functions for all monitor sizes. The video card features custom ASIC chips designed to accelerate your display.



COMES STANDARD WITH 7 FACTORY PRESET RESOLUTIONS, PLUS 7 PROGRAMMABLE SETTINGS FOR ADDITIONAL VIDEO CARDS.

As a result, graphics-intensive applications work faster and more smoothly when processing large color images. Our **24-bit accelerated system** works with Mac II, IIx, IIcx, IIci, IIfx, and Quadra 700, 900 and 950. Available with on-board video for the Quadra family.

Our **8-bit system** includes the RealTech RT-8 video card. Compatible with Mac II, IIcx, IIsi, IIfx, SE/30, and LC.

RealTech Trinitron w/8-bit Card *Lease: $60/per mo.* **$2195**

RealTech Trinitron w/24-bit Card *Lease: $74/per mo.* **2695**

–at an affordable price!



"...returned a call late at night (at a time convenient to me) from his own home. I think this sort of dedication goes beyond the call of duty...with this sort of technical support, I have no hesitation recommending your organization to friends and colleagues, and you certainly have my business in the future."

— *Jules Allen*
Harlequin Graphics

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

18



Dan
(Tech
Support)

HOW TO CHOOSE A DESKTOP SCANNER

If you need high-quality print output, a high-resolution scanner is a necessity. You need to be able to scan, edit, crop and scale your images without distortion or blurring. If you'll be using OCR software or 35mm slides, look for a scanner that includes (or will accept) a document feeder and a transparency option. Finally, check the scanner's software: Is it easy to use...flexible... and powerful enough for your needs?

Our technical team tests these scanners (and all Hardware That Fits products) before shipping them to you. They're conscientious, dedicated, and always willing to go the extra mile. Front row, left to right: Doug and John. Back row: Marcus, Mark and Jeremy.



SEE THE REALTECH SCANNER ON PAGES 12-13...IT OFFERS A TRANSPARENCY OPTION.



MICROTEK

Microtek Scanmaker II

$949*

Lease: $26/month

High-resolution 600 dpi color scanner. Outstanding image quality in a compact, flatbed design. Includes ScanMatch color calibration software.

- *24-bit color, 8-bit grayscale*
- *600 dpi scanning*
- *3 scanning passes (red, green, and blue filters)*
- *14 brightness settings for each color plane*
- *Scanning speed: approx. 150 seconds*

* Microtek ScanMaker II includes a limited edition of Adobe Photoshop. Other scanners on these two pages include a full version of the program.

Microtek ScanMaker IIXE
Lease: $33/per mo. *$1195*

Microtek Scanmaker Slide Scanner

$1569

Lease: $43/month

Scans 35 mm slides in landscape or portrait orientation. High-resolution scanning at up to 1850 dots per inch.

- *24-bit color, 8-bit grayscale*
- *1850 dpi scanning*
- *3 scanning passes (red, green, and blue filters)*
- *Scanning speed: approx. 100 seconds*





24-bit color...
desktop scanners that won't put you in the red.

Adobe PhotoShop (the full version) is included with these scanners.

SII
Seiko Instruments

Seiko SpectraPoint Color Scanner

$2049

Lease: $56/month

- *24-bit color, 8-bit grayscale*
- *800 dpi scanning*
- *1 scanning pass (red, green, and blue filters)*
- *14 brightness settings for each color plane*
- *Scanning speed: approx. 28 seconds at 400 dpi*

Single-pass flatbed scanner allows color matching between scanner and monitor. Custom gate arrays perform image processing functions like shading, scaling, edge emphasis, and color correction at high speeds. JPEG-compatible image compression and decompression software. Color gamma tables and hardware-based color masking capabilities allow color matching between scanner and monitor.



If you want to scan transparencies like this one, you need the RealTech Scan 800 with Transparency Option (see pages 12-13).

1-800-364-FITS *Toll-free in the U.S. & Canada, too*

HARDWARE THAT FITS **HOURS: 8 am to 7 pm CST**

20



The RealTech Color 350 is becoming the number one choice of designers and ad agencies for first-draft color proofs.

Real Tech™

Reprinted from MACUSER, October 1992. Copyright ©1992, Ziff Communications Co.



"I am writing this letter to express our complete satisfaction with the recent purchase of a RealTech Color 350 laser printer. We compared your color printer to those from QMS, Tektronix and Seiko. The Color 350 was the clear winner in price, performance, 'live' image area, ease of use and installation.

...we saved a considerable amount of money on service bureau charges and were able to meet a very stringent deadline. Our client was particularly pleased by the vibrant colors and the sharpness of the output we produced on the Color 350.

I am sure we will purchase more hardware from you in the near future. Keep up the good work!"

— Achinta K. Mitra
TIECAS Type and Graphics, Inc.

The RealTech Color 350: the affordable color solution for anyone who needs quality color.

Surprisingly affordable price. A lot of people we work with (especially our ad agency!) have been asking us to develop a color printer. We all agreed it should be high quality, but priced at a level that would be affordable for small companies, and cost-efficient for large organizations that plan to use it as a workgroup printer. Finally, it's here, ready to create world-class color printouts.

Surprisingly affordable output. One RealTech Color 350 letter-size 4-color printout costs only 69¢ per copy. A full-bleed 11x17 color printout (OB size) costs about $1.13, and an overhead transparency costs around $1.79.

Unlike some other printers, you can print on both sides! Some color printers are limited to single-sided printing. Not ours! The RealTech Color 350 can print on both sides of the paper.

It's fast! 16 Mhz RISC processor...which means you get your pages much faster than other color printers currently on the market.

It can handle graphics-intensive pages. It comes with 10 Mb standard. If you really need heavy-duty power, it's upgradable to 18 or 34 Mb.

Brilliant, saturated color. You'll see bright, sharp colors and smooth gradient tints from your Color 350.

True black text. Some color printers use a combination of cyan, magenta, and yellow to print black. Because the RealTech Color 350 uses 4 colored ink sheets, black type is rich and solid, as it should be.

No-muss, minimum fuss consumables. The ink ribbon is housed in an easy-to-remove cartridge. No messy ink containers!



IF YOU'RE INTERESTED IN A COLOR 350, WE'LL BE HAPPY TO SEND YOU A SAMPLE COLOR OUTPUT TO SHOW YOU ITS QUALITY.

Add color to business charts and graphs – *only 69¢ per page!*

$5995

Lease price: $165/month

- *Ideal color printing solution*
- *Perfect for workgroups*
- *PANTONE® color simulations*

- *thermally-sensitive ink sheets are housed in an easy-to-load cartridge; quick, simple installation of consumables*
- *changing paper or transparency film is easy (unlike other color printers that use roll media)*
- *4 colors — cyan, magenta, yellow and black — are printed in 4 passes on the paper or film*

The RealTech Color 350 produces laser-quality graphics using state-of-the-art thermal technology.

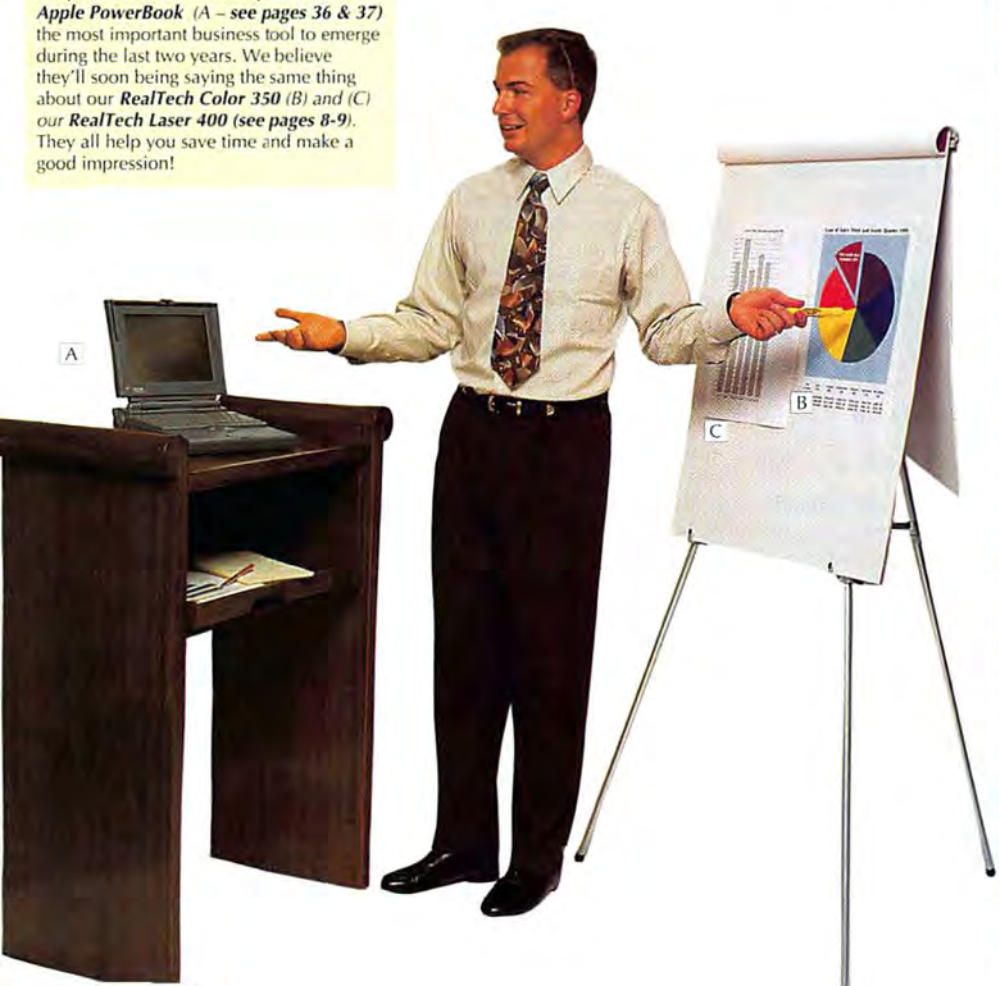
Whether you need a letter-size handout or tabloid-size chart for a presentation, the Color 350 is the right solution. For less than $1 per page, you can impress clients, customers, or colleagues!

Comes with one year on-site warranty in the continental United States. First 60 days on-site; remainder of warranty depot.

One year on-site warranty	*$649*
Two year on-site warranty	*1495*

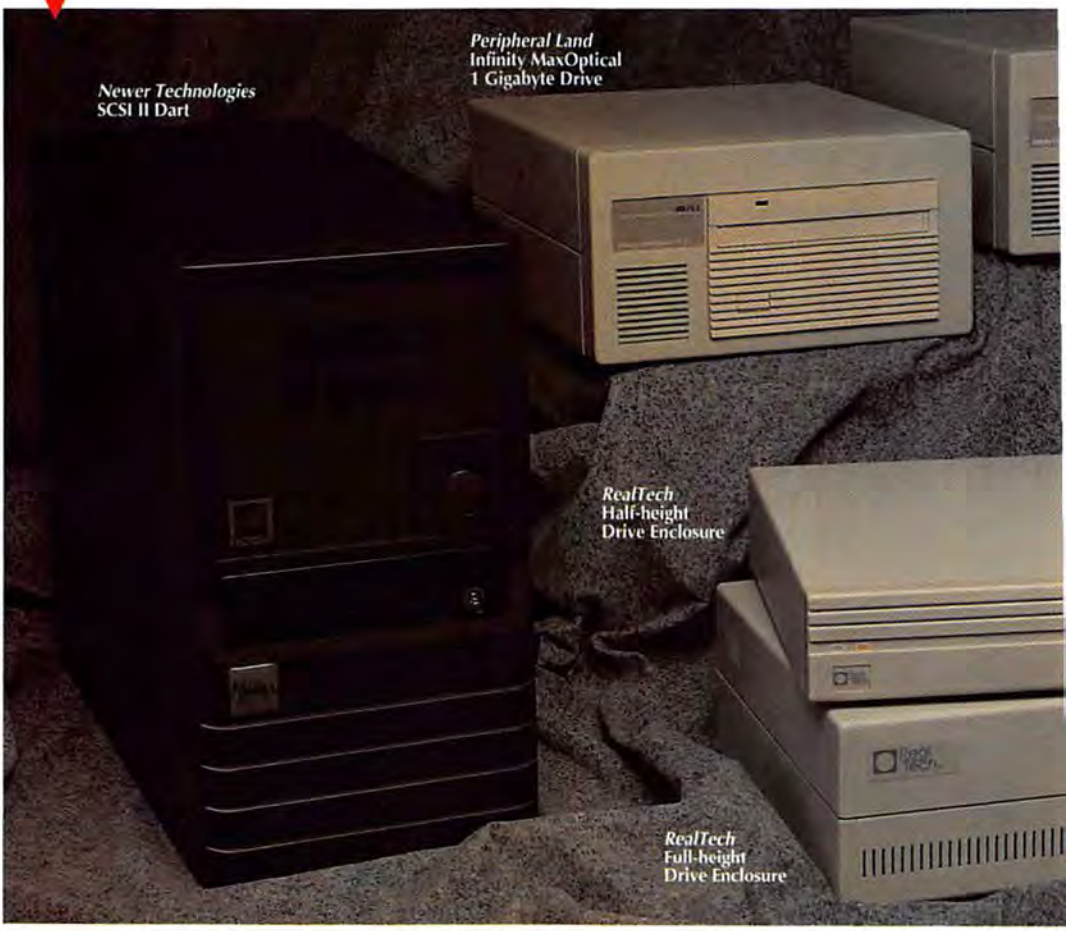
PANTONE® is Pantone, Inc.'s check-standard trademark for color.

Frequent business travelers proclaim the ***Apple PowerBook*** *(A –* ***see pages 36 & 37****)* the most important business tool to emerge during the last two years. We believe they'll soon being saying the same thing about our ***RealTech Color 350*** *(B) and (C) our* ***RealTech Laser 400 (see pages 8-9)***. They all help you save time and make a good impression!



1-800-364-FITS Toll-free in the U.S. & Canada, too HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

22 High-capacity solutions



Storage Dimensions

1 GB Erasable Optical Drive

The capacity of a rigid disk drive with the convenience of removable storage.

1 GB Erasable Optical Drive
Lease: $125/per mo. **$4579**

500 Mb Bullet Drive

Disk mirroring, disk spanning capabilities. Portable drive has "auto-park" head. Comes with two SCSI ports, its own power supply, and software.

500 Mb Bullet Drive
Lease: $55/per mo. **$1999**

Mac 2 Expandable Cabinet

Lets you join two full-height drives in one case and use them as a single, larger drive. Dual power supply and fans ensure long life.

Mac 2 Expandable Cabinet
Lease: $134/per mo. **$4898**

Ask about our
LEASING PROGRAM
Toll-free information:
1-800-364-LESS

Peripheral Land

Infinity 1 GB MaxOptical 5.25" Erasable Optical Drive

Safe, portable 1 GB of capacity. Optical cartridges are highly resistant to environmental damage, shock and magnetic fields, even head crashes and breakages. Well-suited for long-term storage of 10 to 25 years. Provides fast random access to files, unlike magnetic tape, for quick retrieval of archived projects or infrequently used programs. Keep unlimited storage on-line with Infinity magneto-optical removable cartridges. *More storage for your money!*

1 GB 5.25" Magneto-Optical Drive
Lease: $97/per mo. **$3539**

Infinity 128 Mb 3.5" Magneto-Optical Drive

A plug-and-play, low cost-per-megabyte solution! Would you like to store 128 Mb of data on a 3.5" disk the size of a floppy? Now you can, with PLI's rewritable optical drive. Durable magneto-optical media is resistant to magnetic fields and shock.

With a 15-year storage life, it's ideal for archiving images and documents, as well as providing you with practical, affordable day-to-day storage. Average access time of 40 milliseconds. Disk rotational speed of 3000 rpm; 64K data buffer.

128 Mb Infinity Floptical Drive
Lease: $45/per mo. **$1649**

Infinity MiniArray

Incorporates data striping to provide data transfer rates of 5 Mb per second sustained, and 7.5 per second burst. Based on two half-height drives, a proprietary controller card and PLI's QuickSCSI NuBus Host Adapter (which supports data transfer rates 20% greater than the standard Quadra SCSI ports). Connects to the internal 50-pin SCSI port on QuickSCSI.

Infinity MiniArray
Lease: $126/per mo. **$4599**

Fujitsu Internal Drives

SCSI 2 drives backed by a 5-year warranty. For external use, add $105 for RealTech enclosure (shown above in photo).

425 Mb Internal Drive
Lease: $28/per mo. **$1029**

520 Mb Internal Drive
Lease: $35/per mo. **1285**

1.1 GB Internal Drive
Lease: $54/per mo. **1959**

1.7 GB Internal Drive
Lease: $88/per mo. **3199**

o big storage problems.



Mass Microsystems

DataPak 128 Mb 3.5" Magneto-Optical Drive

Amazing! 128 Mb of data on a disk the size of a floppy! DataPak's new 3.5" rewritable optical technology gives you high-capacity storage with the reliability of an optical disk and the performance of a removable cartridge drive. Average access time of 38 milliseconds, disk rotational speed of 3000 rpm and 64K data buffer. *The fastest performance available in an optical drive today.*

MassMicro 128 Mb DataPak *Lease: $45/per mo.* **$1649**

Newer Technologies

SCSI Dart Solid State Storage System

Easy software setup; no switches to set! Ideal solution for file-server duties. Compatible with Macintosh, PS/2 and PCs with SCSI drive interfaces. Access times are .5 milliseconds. Uses 1, 4, or 16 Mb SIMMs. Built-in uninterruptible power supply. Includes SCSI cable and two-year warranty on parts and labor.

SCSI Dart Solid State Storage *Lease: $49/per mo.* **$1789**

SCSI II Dart Solid State Storage System

Accelerates both sorting and report generation in database and accounting applications. Access times of .1 millisecond; transfer rates of up to 12 Mb per second. Uses 1, 4, or 16 Mb SIMMs for the storage media. Built-in uninterruptible power supply. Includes SCSI cable and two-year warranty on parts and labor.

SCSI II Dart Solid State Storage *Lease: $81/per mo.* **$2949**

Upgrading to a mass storage hard drive doesn't have to mean a mass outlay of your hard-earned money.



Ask our friendly, knowledgeable sales team (a few of them are shown here) about your leasing options. They can also help you decide what size of drive you really need; sometimes a smaller, less expensive drive is really a more appropriate solution for the way you work. Seated, left to right: Jon and Daria. Standing: Michael, Chuck, James and Ed.

1-800-364-FITS *Toll-free in the U.S. & Canada, too*

HARDWARE THAT FITS **HOURS: 8 am to 7 pm CST**

24

Big-screen solutions at a price you can enjoy.

Real Tech™

RealTech 15" Grayscale Monitor

$449

Lease: $12/mo.

- *870 x 640 resolution*
- *80 dpi*
- *tilt-and-swivel base*
- *anti-glare screen*

Crisp black text and superior grayscale at a price that lets you experience the convenience of large-screen viewing. Flicker-free screen helps reduce eyestrain; tilt-and-swivel base allows you to adjust the monitor to a comfortable angle. 15" portrait display has 870 x 640 resolution, 80 dpi. Vertical refresh rate of 75 Hz, full grayscale capability. Flat CRT, (P4 phosphorus) with anti-glare screen. One-year warranty.



CPU	Type	Price
Mac II family, SE, SE/30, LCII	mono video card	$579
Mac II family, SE/30, LCII	GS256 video card	879
Mac IIsi, IIci	GS16	449
Quadras	GS256 (on-board video)	449

RealTech 21" Grayscale Monitor

$795

Lease: $20/mo.

- *1152 x 870 resolution*
- *77 dpi, 75 Hz refresh rate*
- *tilt-and-swivel base*
- *anti-glare screen*

At last...now you can view crisp black text and superior grayscale on two-page spreads! Flicker-free screen; tilt-and-swivel base. Flat CRT, (P4 phosphorus) with anti-glare screen. One-year warranty.



CPU	Type	Price
Mac II family SE, SE/30, LCII	mono video card	$995
Mac II family SE/30, LCII	GS256 video card	1295
Quadras	GS256 (on-board video)	795

Macintosh IIsi Workstation with RealTech 15" Full-Page Grayscale Monitor

$3199

Lease price: $88/month

Mac IIsi Workstation

Includes Macintosh IIsi with 5 Mb of RAM, 105 Mb hard drive, RealTech 15" full-page monitor, and Key Tronic MacPro Plus extended keyboard.



More monitors!

SEE PAGES 6-7, 16-17, 26-27, 36-37, AND 44-45 FOR MONITORS IN ALL SIZES AND PRICE RANGES.

Budget color systems!

With these prices and our leasing plan, now there's no excuse for not moving to color...

Macintosh IIsi Workstation with Seiko 14" Color Monitor

$3139

Lease: $86/mo.



Texas Instruments MicroLaser Plus

Prints 9 pages per minute; 3000 page-per-month duty cycle. 1.5 Mb of RAM.

Hewlett-Packard LaserJet Series II emulation standard.

Includes 17 resident fonts.

TI MicroLaser Plus
Lease: $34/per mo. ***$1249***

Workstation

Macintosh IIsi with 5 Mb of RAM, 120 Mb hard drive, 14" Seiko Trinitron color monitor, and Key Tronic MacPro Plus extended keyboard.

IIsi Workstation *Lease: $86/per mo.* ***$3139***

Macintosh LC II Workstation with Sony 13" Color Monitor

$1949

Lease: $54/mo.



NEC Silentwriter Model 95

Uses micro-fine toner and NEC's patented "Sharp Edge" technology to produce superior-quality output. Prints 6 ppm at 300 dpi. 2 Mb RAM, expandable to 5 Mb. Built-in envelope feeder and 250-sheet paper tray.

Adobe PostScript Level 2. Automatic emulation switching. Optional second paper tray available.

NEC Silentwriter
Lease: $40/per mo. ***$1469***

Workstation

Macintosh LC II with 4 Mb of RAM, 80 Mb hard drive, 13" Sony color monitor, and Key Tronic MacPro Plus extended keyboard.

LC II Workstation *Lease: $54/per mo.* ***$1949***

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

26 Color monitors at price



Sony 13" Monitor

$419

Lease price: $12/mo.

Sharp, clear, affordable.

- *640 x 480 resolution*
- *24- or 8-bit color*
- *adjustable tilt-and-swivel base*
- *can be used with a variety of cards*

Great quality for a bargain price! Tilt-and-swivel base allows you to adjust the monitor to a comfortable angle. 16.7 million colors; 640 x 480 resolution.

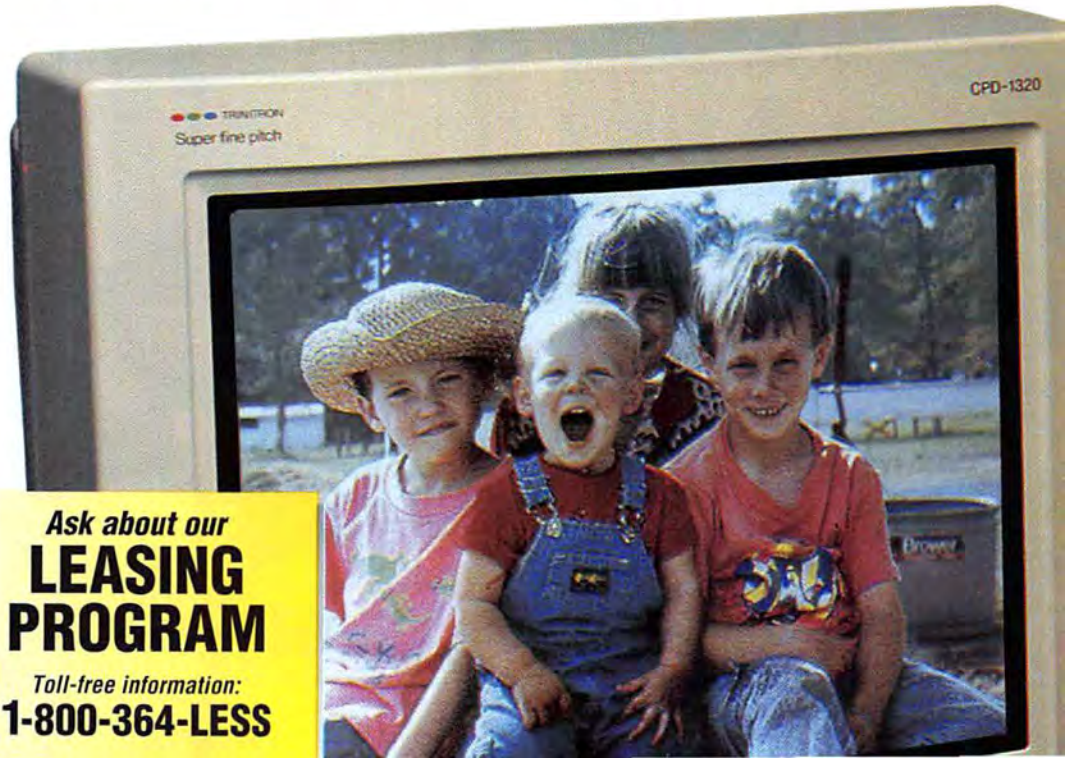
Sony 17" Trinitron Monitor

$1189

Lease price: $33/mo.

Exceptionally crisp text and graphics!

Multi-scan, high resolution monitor produces exceptionally sharp text and graphics...makes it easy to work for extended periods of time. Super Fine Pitch™ aperture grille allows more electrons to reach the color phosphors on the screen—so the images are brighter and the colors more vibrant than in conventional monitors. Displays up to 16.7 million colors; 1024 x 768 resolution in non-interlaced mode. 50-87 Hz refresh rate. Flicker-free screen, tilt-and-swivel base.



Ask about our

LEASING PROGRAM

Toll-free information:

1-800-364-LESS

that will delight you!



The ideal solution for color on a budget.

$1295
Lease price: $36/mo.

Seiko Instruments 17" Trinitron Monitor

Virtually flat, anti-glare screen with high-contrast tube for exceptional color.

Virtually flat screen reduces glare and maintains focus out to edges. High-contrast Trinitron tube provides superior color and crisp, clear type.

Maximum resolution of 1280 x 1024 (in non-interlaced mode), for extreme detail in your most demanding jobs. Displays up to 16.7 million colors. 50-87 Hz refresh rate. Flicker-free screen, tilt-and-swivel base.

Specially designed electronics and state-of-the-art light metal silica anti-glare treatment meet MPR II compliance standards.

Seiko Instruments 14" Trinitron Monitor

$579
Lease price: $16/mo.

43% brighter than the leading competitor!

- *640 x 480 resolution*
- *24- or 8-bit color*
- *can be used with a variety of cards*

High-resolution Trinitron tube. Flicker-free screen, tilt-and-swivel base. View 16.7 million colors at 72 dpi. 640 x 480 resolution, 75 Hz refresh rate.

Now you can afford to play around with the idea of owning a color system.



The color monitors on this page are perfect for graphs, pie charts and spreadsheets — just the type of thing our dependable accounting team likes to view in color! Clockwise, from bottom: Robin, Sunni, Bonnie, and Sharla.

1-800-364-FITS Toll-free in the U.S. & Canada, too HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

28



Dona
(Sales)

HOW TO DECIDE WHICH PRINTER IS THE BEST SOLUTION FOR YOUR NEEDS

1. How many pages do you need to print each month?

2. What page-per-minute speed do you require?

3. What is the printer's resident language? (Adobe PostScript Level 2 is the language of speed and compatibility.)



Texas Instruments MicroLaser Turbo XL

$2795

Lease price: $77/month

- *25,000 page-per-month duty cycle*
- *prints 16 pages per minute*
- *2.5 Mb RAM*
- *35 resident fonts*

300 dpi, Adobe PostScript® Level 2; RISC-based processor. 2.5 Mb RAM. Prints 16 pages per minute. 25,000 page-per-month duty cycle. Optional accessories: second paper tray and SCSI interface.

Includes 35 resident fonts.

SCSI Interface..... *$239*

Texas Instruments MicroLaser Plus

$1249

Lease price: $34/month

- *3,000 page-per-month duty cycle*
- *prints 9 pages per minute*
- *1.5 Mb RAM*
- *17 resident fonts*

300 dpi, Hewlett-Packard LaserJet Series II emulation standard. 1.5 Mb RAM. Prints 9 pages per minute.

3,000 page-per-month duty cycle. Optional accessories: second paper drawer, envelope tray.

Includes 17 resident fonts.

Second Paper Drawer... *$201*
Envelope Tray..... *269*

Texas Instruments MicroLaser Plus 35 w/1.5 Mb RAM (35 resident fonts)
Lease: $37/per mo...... *1349*

"I'd like to take a few minutes to thank you for your assistance in purchasing equipment for my Apple IIsi. Not only were you helpful, you were also informative....

I know this may sound trite, but shopping over the phone, and buying things 'sight unseen' can be a real tragedy. Dealing with you, I can be sure of what I'm getting...that, to me, is rare.

I have referred a couple of people to Hardware That Fits, and I'm sure that they will be satisfied also. Thanks again for your help, and keep up the good work!"

— Lisa Wilkins, Syva Company

More printers!

SEE PAGES 8-11, 20-21, 38-39, & 46-47 FOR NAME-BRAND PRINTERS: SEIKO, RASTEROPS, REALTECH...

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST



The solution is black & white (and affordable).

NEC SILENTWRITER MODEL 95

Micro-fine toner and NEC's patented "Sharp Edge" technology give you sharp, black print quality.

300 dpi laser printer prints 6 ppm. 2 Mb RAM, Motorola 68000 processor, expandable to 5 Mb. Built-in envelope feeder and 250-sheet tray; feed or print consecutively or alternately. Resident language: Adobe PostScript® Level 2. Automatic emulation switching. Optional second paper tray available in letter and legal sizes.

Includes 35 resident fonts.

$1469

Lease price: $40/month

- *6,000 page-per-month duty cycle*
- *prints 6 pages per minute*
- *2.5 Mb RAM*
- *35 resident fonts*

Our marketing communications team knows the importance of a good, speedy printer! Seated: Holly, Baron. Back row: Réal, Lisa, Phil, Jeanne, Beth.





30 Networking solutions: *cards and hubs.*



Asanté EN/SC (SCSI-to-Ethernet adapter)

The Ethernet solution for Macs without available slots.

For computers that don't have an internal slot for a network card (such as the PowerBook or Mac Classic), or for computers whose slots are already full. Can be installed in minutes! Designed with ports for all three types of Ethernet media: thick, thin, and 10Base-T. Includes two SCSI connectors. An excellent long-term investment, because you can easily change from one type of network media to another without additional hardware purchases.

EN/SC.....*$339*

Asanté MacCon 3 Ethernet Card

Auto-sensing ports automatically configure the card for the type of media used...

which means you can easily change from one type of network media to another without buying additional hardware. Available for the Mac SE, SE/30, IIsi and Nubus (Mac II family).

MacCon 3 II NB Ethernet Card...*$216*



THERE'S NOT ENOUGH ROOM TO SHOW ALL OF OUR SOLUTIONS...SO IF YOU'D LIKE A PRICE ON A PRODUCT NOT LISTED HERE, PLEASE CALL.

Asanté 10T Hub/8 (Ethernet concentrator)

Connects you to a high-speed 10Base-T network...lets you use inexpensive unshielded twisted-pair (UTP) telephone wire instead of expensive coaxial cable for local area networks.

Connects in a star configuration to Macs, PCs or any other workstation that has a 10Base-T Ethernet card or external 10Base-T transceiver (and others which meet IEEE specifications for 10Base-T Ethernet). Has a total of nine ports (8 UTP, 1 BNC); all ports can be connected simultaneously, providing your network manager the maximum flexibility possible. Supports all popular network operating systems and network management software. Compact; easy to install.

10Base-T Hub/8*$265*





TechWorks GraceLAN Update Manager

The most advanced tool available for updating and installing software on your network.

Now you can update files and applications right from your desktop! GraceLAN Update Manager checks system requirements and compresses files to minimize network traffic.

GraceLAN for 50 Users...*$285*







DaynaSTAR MiniHub

Low price per node! A non-intelligent hub for connecting devices on 10Base-T networks.

Eight RJ45 jacks for 10Base-T connections allow communication between various types of computers, printers, and servers. Supports any network operating system. Can operate as a stand-alone hub for up to eight devices, or can be daisy-chained with other hubs over 10Base-T wiring to create larger networks. Includes BNC connector to connect the MiniHub to a thin Ethernet backbone.

DaynaSTAR MiniHub (8-port)..... *$299*





DaynaPORT E/II-T NuBus Card

Connects Mac II computers to thick, thin, fiber optic or 10Base-T Ethernet cable systems.

Includes an RJ-45 jack for 10Base-T wiring.

DaynaPORT E/II-T NuBus Card..... *$269*

DaynaPORT E/Z

Ideal for Macintosh computers that don't have a slot for a network interface card.

Connects the Mac Plus, Classic, and PowerBook to Ethernet. Also an ideal solution for SE, LC, and IIsi computers that have used up their only slot and need an Ethernet connection. Connect to your Mac's printer port instead of using a SCSI Ethernet connector. Supports all Ethernet cable systems. Includes RJ45 connector for 10Base-T twisted-pair wiring, a BNC port, and an AUI port.

DaynaPORT E/Z..... *$269*





Dayna EtherPrint

Connecting LocalTalk printers to an Ethernet system used to require an expensive bridge or router. Not anymore!

EtherPrint is affordable, easy to install and easy to use. It connects directly to a LocalTalk printer or other device and an Ethernet cable system. EtherPrint supports AppleTalk Phase 1 and Phase 2 protocols, so you can divide your network into multiple zones.

Dayna EtherPrint..... *$335*
Dayna EtherPrint Plus..... *439*

1-800-364-FITS Toll-free in the U.S. & Canada, too HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

32



Chuck
(Sales)

WHEN SHOULD YOU GRADUATE FROM LOCALTALK TO ETHERNET?

If your LocalTalk network is bogging down and can't keep up with those 24-bit color graphics files you're transferring (or all the file sharing you need to do), you should make the move to Ethernet. In real-world file transfer tests, Ethernet is three to five times faster than LocalTalk. But if you don't know which bridge, hub, card, or router will work with your particular setup, give us a call (toll-free). We can help you make the right connections!



GatorBox CS Rack

Rack-mounted version of the GatorBox CS. Dual fans and status lights on front and back.

GatorBox CS Rack
Lease: $59/per mo. **$2139**

LET'S TALK! CALL US TOLL-FREE FOR ANSWERS TO YOUR QUESTIONS ABOUT HOW TO SET UP NETWORKING IN YOUR OFFICE.

Farallon

PhoneNet Liaison Software Router

Allows Ethernet, LocalTalk, TokenTalk and others to share network services without a dedicated Mac. Dial-in access to local area networks, password protection & more.

PhoneNet Liaison
Lease: $7/per mo. **$259**

Ether 10-T Starlet (9-port)

Connects up to eight Ethernet devices (for a total of nine ports) in a reliable star topology. Can be used to expand intelligent 10Base-T hubs, such as the Star Controller EN, by allowing you to add multiple nodes to a single port. Includes eight easy-to-use RJ45 10Base-T ports, and one BNC 10Base-2 port for connecting multiple Starlet hubs. Link integrity LEDs indicate function status.

Star Controller (9-port)
Lease: $8/per mo. **$279**

PhoneNet Star Controller

An intelligent hub that lets you create larger, more manageable LocalTalk networks. Uses unshielded twisted-pair cabling; star topology increases network reliability. StarCommand software (included) provides advanced network management, including automatic error notification, traffic statistics, line test, and the ability to switch individual ports on and off.

Star Controller (stand-alone hub)
Lease: $30/per mo. **$1099**

Star Controller (24-port
Lease: $38/per mo. **1389**

PhoneNet Star EN (12-port)

Keeps your network running even in the event of network errors. If a device sends disruptive jamming signals, the port it's attached to is automatically disconnected before the rest of the network is affected. Uses twisted-pair wiring to connect up to 12 network devices. Additional devices can be added to each port using the Starlet mini-hub. Includes StarCommand software, which automatically monitors StarController hubs, reports errors, provides per-port traffic information, and allows ports to be switched on or off.

Star Controller (12-port)
Lease: $38/per mo. **$1369**

Cayman

GatorBox CS is the most advanced AppleTalk-Ethernet gateway available...connects an entire LocalTalk network to Ethernet.

Lets Macintosh users on LocalTalk communicate with UNIX, DEC, and PC users on Ethernet. Allows everyone on the network to share files, mail and printers. The only gateway that can be upgraded to a file-sharing and UNIX-AppleTalk printer sharing gateway (using GatorShare CS and GatorPrint CS software). Plug-and-play Phase 1 and Phase 2 AppleTalk routing capabilities are built in, so Mac users on LocalTalk can immediately share files, mail and other network devices. Contains more memory than any other gateway (1 Mb of DRAM). Reliably manages heavy network traffic and large routing tables on AppleTalk networks. Two-year warranty.

GatorBox CS
Lease: $56/per mo. **$2029**



Networking bridges and routers.



Shiva

NetBridge
Doubles your network's node count and wiring length limit. Can connect two independent local networks into one large internetwork without any performance degradation. Directs network traffic to the shortest route. Comes with Shiva Net Manager software, which lets network managers group networks into zones, restrict access between zones, and more.

NetBridge.....*Lease: $12/per mo.* **$449**

EtherGate Router
Routing gateway that combines EtherTalk and LocalTalk networks into a single internetwork; connects remote LocalTalk and EtherTalk networks over phone lines. Consists of an Ethernet port (thick and thin, used one at a time) and two LocalTalk/serial ports.

EtherGate Router..... *Lease: $38/per mo.* **$1399**

NetSerial
Allows users to share serial devices, such as printers, over a LocalTalk network. Can be used as a gateway to minicomputers and mainframes. Connects directly to the network without a dedicated computer.

NetSerial.....*Lease: $8/per mo.* **$299**

NetModem/E (for Ethernet networks)
Consists of a dedicated communications processor, a high-speed 14,400 baud modem with v.32bis and v.42bis support and a built-in Ethernet interface.

- ***Remote dial-in access*** allows a user with any standard modem to dial into a network. Requires no communications applications or new user interface.
- ***Shared modem dial-out*** works with leading communications programs.
- ***Remote routing*** routes AppleTalk or IPX packets over ordinary phone lines.

NetModem/E.....*Lease: $43/per mo.* **$1579**

NetModem V2400 (for LocalTalk networks)
Remote users can dial into a network or out over a shared phone line. Consists of a Hayes-compatible 2400 baud modem with v.22 and v.22bis support, and a built-in LocalTalk interface.

NetModem V2400.....*Lease: $10/per mo.* **$369**

NetModem/v.32 (for LocalTalk networks)
Same features as NetModem/E, but designed for LocalTalk networks. Consists of a Hayes-compatible high-speed 9600 baud modem with v.32 support, and a built-in LocalTalk interface.

NetModem/v.32.....*Lease: $35/per mo.* **$1269**

FastPath 5R Router/Gateway
Routes multiple protocols: TCP/IP, DECnet, AppleTalk Phase 1 and Phase 2, IPTalk and NFS. Includes EtherModule, a removable Ethernet connector that allows you to switch to a different Ethernet media if needed. Comes with Shiva Net Manager software. Rack-mounted.

FastPath 5R.....*Lease: $56/per mo.* **$2049**



Hublet
No configuration software required! A stand-alone local concentrator for 10Base-T networks, the Hublet allows multiple nodes to connect to a single 10Base-T drop. Can be daisy-chained to create small 10Base-T networks. Four ports offer connections to Macs, PCs, workstations, or any 10Base-T device.

Hublet.....*Lease: $6/per mo.* **$229**



Acts as a "power strip" for 10Base-T networks... splits a single 10Base-T network into four!

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

High-performance



Mike (Sales)

CHOOSING THE RIGHT STORAGE MEDIA

If you have simply run out of room, a fixed hard drive might be just right. But for more specialized needs, there are more options. Floptical drives let you use both floppy disks and 21 Mb diskettes, for unlimited data storage. A portable drive is great for users on the go — just slip it into your briefcase! A cartridge drive is the choice of pros for archiving documents.



Peripheral Land
88 Mb Syquest Drive

Conner

Internal Drives

120 Mb	$389
212 Mb	629

External Drives

120 Mb	$479
212 Mb	719

Quantum

Internal Drives

105LP Mb	$389
240S Mb	729
425S Mb	999

External Drives

105LP Mb	$479
240S Mb	815
425S Mb	1085

Peripheral Land

Infinity Floptical Drive

Reads and writes 720K and 1.44 Mb floppy disks. Can also use 3.5" floppy disks with a capacity of 20.8 Mb.

Floptical technology incorporates optical servo tracks, an infrared light-emitting diode, and photo detector to position read/write heads.

Inexpensive 21 Mb floppy diskettes provide unlimited low-cost per Mb expandability.

21 Mb Infinity Floptical Drive — $469
Lease: $13/per mo.

21 Mb Floptical for Quadra (internal) — 409
Lease: $11/per mo.

Infinity 44 & 88 Mb Turbo Drives

Effective for storing and archiving seldom-used data. Average access time: 20 milliseconds. Fast data throughput, and SCSI-2 support. Unlimited storage capacity; all you have to do is add more cartridges. The Infinity Turbo 44 and 88 use a Syquest mechanism, reducing chances of a head crash. *Free yourself from the capacity limit of a fixed hard drive.*

Infinity 44 Mb Turbo Drive — $579
Lease: $16/per mo.

Infinity 88 Mb Turbo Drive — 699
Lease: $19/per mo.

WE COULD EXTOL THE VIRTUES OF OUR TECH SUPPORT TEAM. BUT WE WON'T. WE'LL LET SOMEONE ELSE TELL YOU HOW TERRIFIC THEY ARE...

"I bought my RealTech Laser just before Christmas. At the time, I remember being a little irritated because I paid $100 more than the price MacFriends was asking for what I considered to be the same machine. (Their ad came out after I placed my order.)

Your salesman at the time pointed out that you provide tech support, which didn't seem to be worth the $100 difference at the time.

I was wrong, wrong, WRONG.

Your tech support people just pulled me out of an awful situation with a 2 minute phone call. This is a growing business. I plan to buy more Macs, hard drives, monitors, software upgrades...and I plan to buy them from you."

— David Hayes
David Hayes Advertising

affordable storage.



Mass Microsystems

21 Mb Floptipak Drive

A breakthrough in high-capacity floppy storage! 21 Mb floppy-sized cartridge holds 25 times the data of a floppy disk at a low cost per Mb. Also reads 1.44 Mb high-density or standard 720K disks...which means you can continue to use older floppies while you make the transition to Floptical disks.

21 Mb Floptipak Drive
Lease: $13/per mo. **$469**

45 or 88 Mb DataPak Removable Cartridge Drives

One of the most cost-effective ways available to add capacity and back up your data. This is a system that grows with you — when you need more storage, just add another cartridge. The 20 milliseconds access time of DataPak drives is actually faster than some fixed drives; up to 32K buffer. HDI SCSI cable available for PowerBooks.

45 Mb Removable Drive
Lease: $16/per mo. **$569**

88 Mb Removable Drive
Lease: $18/per mo. **659**

DiamondDrive Portables

This compact, quiet drive offers all of the capabilities of standard external hard drives. Weighing under 3 lbs., each drive is shock-mounted in a rugged, scratch-resistant case.

Depending on the disk capacity you need, you can choose either the one-inch unit with a single SCSI port, or the two-inch unit with dual SCSI ports. *Both models are so quiet you'll hardly know they're there — and compact enough to carry in a briefcase.*

120 Mb DiamondDrive Portable (1")
Lease: $14/per mo. **$499**

210 Mb DiamondDrive Portable (2")
Lease: $19/per mo. **679**

DiamondDrive

For a variety of storage intensive data and image applications, from small business to large network needs. *An affordable way to increase your Macintosh system's storage capabilities.*

120 Mb DiamondDrive
Lease: $16/per mo. **$589**

210 Mb DiamondDrive
Lease: $23/per mo. **829**

HitchHiker 80

A compact, lightweight design provides the reliability, performance and superior design found in conventional hard drives. Uses standard 50-pin SCSI connectors, has an external SCSI ID selector switch, and is internally terminated. *Requires no AC power since the drive is powered directly from your Macintosh.* Power adapter, ADB cable, and SCSI extender are included.

HitchHiker 80 Drive
Lease: $18/per mo. **$669**

Storage Dimensions

200 Mb Bullet Drive

Very light, transportable drive with "auto-park" heads. Comes with two standard SCSI ports, its own fan and power supply, and software. All Storage Dimensions drives come with MacinStor utilities, disk mirroring and disk scanning capabilities.

120 Mb Bullet Drive
Lease: $19/per mo. **$679**

200 Mb Bullet Drive
Lease: $30/per mo. **1079**

325 Mb Bullet Drive
Lease: $40/per mo. **1449**

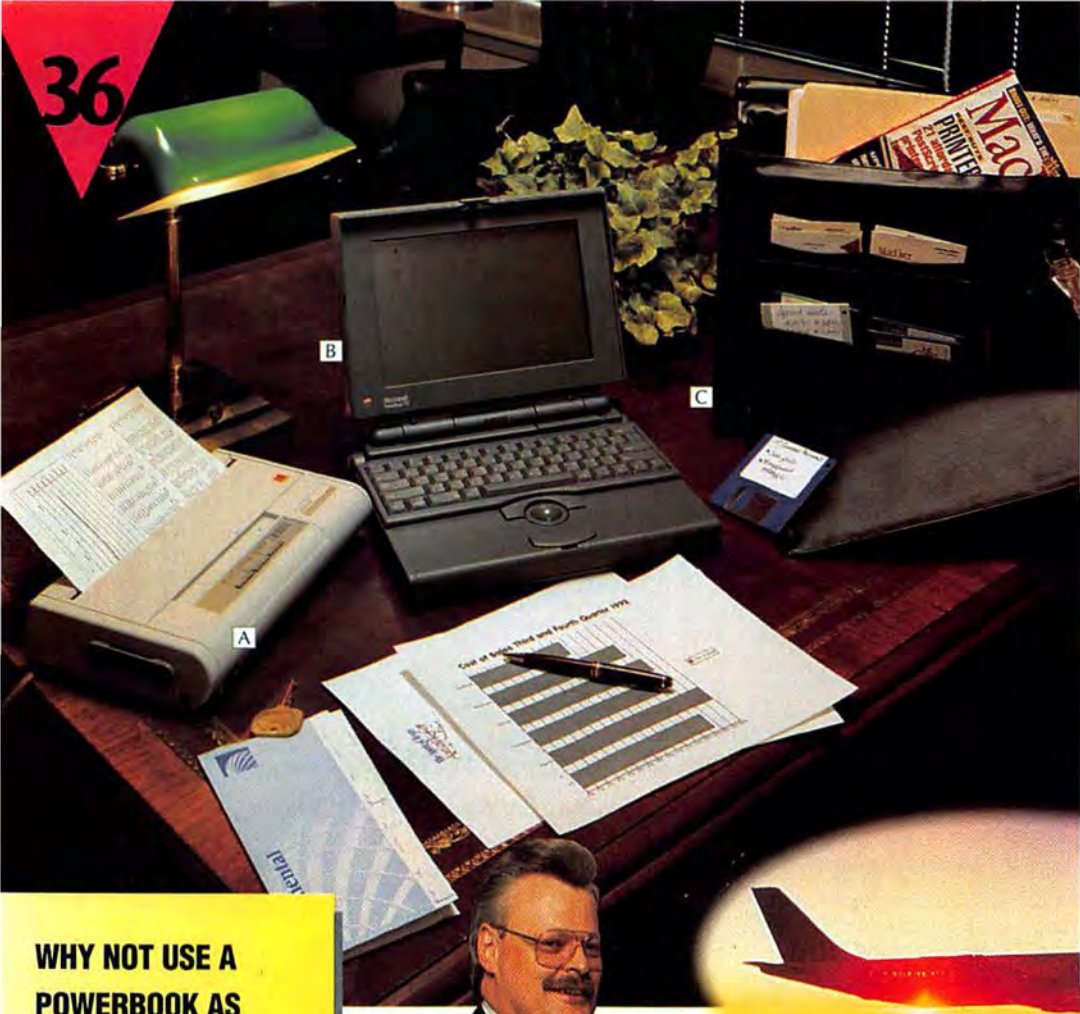
Like the drives on this page, you can always count on our tech team.

Every week, we receive dozens of letters like the one at the left. Most of them are written specifically to thank someone on our tech team for pulling them out of a jam. It's true that on a few products we sell, our prices are higher than the competition. But they don't offer toll-free tech support...and we do! (1-800-364-MACS.)



Seated, left to right: Paul and Craig. Standing: Chris, Tom, Dan, Mike, Dave.

1-800-364-FITS Toll-free in the U.S. & Canada, too HARDWARE THAT FITS HOURS: 8 am to 7 pm CS



WHY NOT USE A POWERBOOK AS YOUR PORTABLE AND YOUR DESKTOP COMPUTER?

I do. I travel a lot (negotiating the great Mac deals you see in our ads), and I just can't afford to waste time copying data from my PowerBook to a standard hard drive. So I don't. When I come back to my office, I simply attach the RealTech 15" monitor's SCSI station and cable to the back of the PowerBook and start working. (The PowerBook's screen is great — but nothing beats a full-page display!)

Réal Provencher



Réal Provencher

Our portable traveling solution — the PowerBook, Kodak Diconix 180si printer, and leather attaché — is a time-saving trio for the frequent business traveler. No more waiting for the hotel business office to print documents for you. If you need to publish a memo or agenda for your next meeting, just pull out the lightweight Diconix printer from your attaché, hook it up (in one easy step)...and print!

A Kodak Diconix 180si Printer
Lease: $10/per mo... **$379**

B Apple Macintosh PowerBook 170 w/8 Mb of RAM, 80 Mb hard drive
Lease: $256/per mo. **4079**

C Leather Attaché..... **139**

D RealTech 15" Monitor and SCSI Station
Lease: $24/per mo..... **879**

Not pictured

Internal PB1 Fax Modem	**199**
Battery Pack	**169**
Charger/Reconditioner	**169**

PowerBook 170 Portable Workstation. *(Includes PowerBook 170 with 8 Mb of RAM and 80 Mb hard drive, Kodak Diconix 180si printer, RealTech 15" monitor and SCSI station, internal PB1 send/receive fax modem, and executive leather attaché.)*
Lease: $155/per mo. **$5675**

Macintosh PowerBook.

The powerful, practical, portable solution for people on the move.

Apple Macintosh PowerBook 170 — $4079

Lease: $112/month

Apple's top-of-the-line, highest performance PowerBook. Its speed and responsiveness allow you to run almost any type of program with ease.

- *Active matrix display (640 x 400) for optimum viewing comfort*
- *8 Mb of RAM*
- *80 Mb hard drive*
- *25 MHz 68030 microprocessor*
- *1.44 floppy drive*

Apple Macintosh PowerBook 170 8/80 — Lease: $112/per mo. — $4079

PowerBook 170 8/80 with 15" Trinitron Monitor and SCSI Station — Lease: $147/per mo. — $369

Apple Macintosh PowerBook 145 — $2439

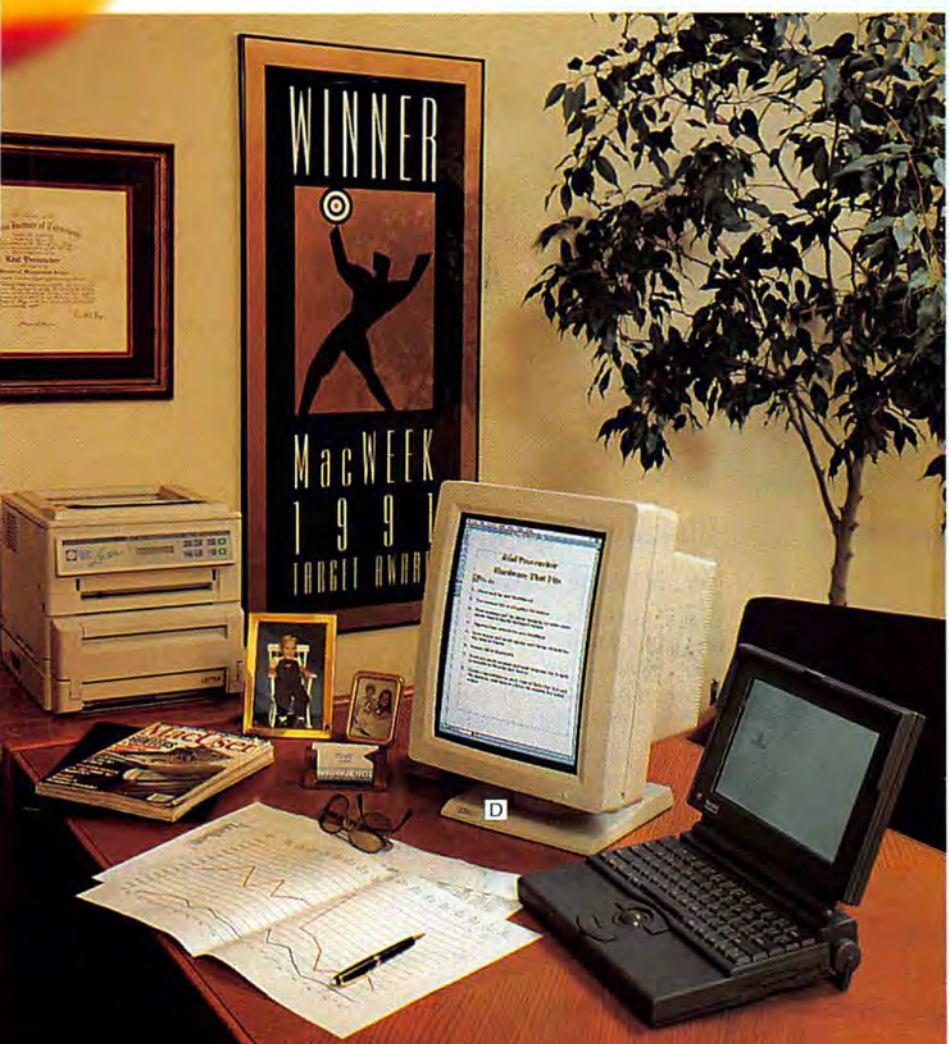
Lease: $67/month

With power and speed equivalent to the 170, Apple's new PowerBook 145 will become a standard feature in boardrooms, hotels, and airplanes.

- *Supertwist liquid crystal display (640 x 400)*
- *4 or 8 Mb of RAM*
- *80 Mb hard drive*
- *25 MHz 68030 microprocessor*
- *1.44 floppy drive*

Apple Macintosh PowerBook 145 4/80 — Lease: $67/per mo. — $2439

Apple Macintosh PowerBook 145 8/80 — Lease: $75/per mo. — 2729



1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST



PSI Integration

PB 1 Modem

Can send and receive from the PowerBook to any fax machine or modem. Internal 9600 bps send; 4800 bps receive fax/2400 bps.

PowerBook 1 Fax Modem.....*$199*

WANT TO BUY APPLE'S NEWEST POWERBOOK? GIVE US A BUZZ (TOLL-FREE). WE'LL BE HAPPY TO QUOTE YOU A PRICE.

Global Village Modems

Global Village TelePort

An ADB-compatible modem designed specifically for the Macintosh. Plugs into the Apple desktop bus port with the mouse and keyboard. No plug-in power supply or power switch!

Global Village TelePort*$179*

Global Village PowerPort-Silver

Send and receive fax and modem data at 9600 bps. If you often communicate on-line and use dial-in software such as AppleTalk Remote Access, this is the modem you need.

Global Village PowerPort – *Silver*.....*$469*

PowerBook Memory Upgrades

Newer Technologies

Add-in memory boards for PowerBooks. Ultra-low power DRAM design ensures long battery life.

4 Mb Upgrade.....*$269*
6 Mb Upgrade.....*359*

Solectek Modem

Easy-to-use fax modem features a 9600/4800 bps send and receive fax.

Solectek Pocket Fax.....*$219*

PowerBook accessories.

The portable solutions you need for computing on the go.



The quality image of finely-detailed leather is a fitting way to transport your PowerBook.

Zoom Modems

Combines a 9600 bps send/receive fax with a Hayes-compatible 2400 bps modem. V.42bis/MNP5 data compression provides high-speed fax and data capability for your personal computer. Group III compatible.



Zoom 2400 $75
Zoom FX 96/24v 149
Zoom 9600 v.32/42 bis 259

Portable Printer

Kodak Diconix 180si Printer

Quality, portable printing has never been so easy! Thermal ink-jet printer prints on continuous-form paper. Capable of printing consecutive copies for up to 50 minutes. Unlike some portables, the self-contained ink supply on the Diconix is easy to replace. Standby lifetime is 12 hours. Approx. 2" x 6.5" x 11"; weighs under 3 lbs. Printer driver and SCSI cable are included.

Kodak Diconix 180si Printer $379

Mass Microsystems

MassMicro fm 24/96 Modem

Some fax modems require bulky external transformers or batteries; this one simply plugs into the serial and ADB ports of any Macintosh. Automatic "sleep" feature drops power consumption when the unit is idle. A command or ring-detect wakes the unit, making it ideal for use with the PowerBook. Provides fax transmission at 9600 bps, and data transmission at 2400 bps. Supports Group III compatibility.

MassMicro fm 24/96 PB $209

Prometheus

ProModem 2496/R Minifax

Performs fax transmission at 9600 bps, and data transmission at 2400 bps. Group III compatible. Includes 8 LED status lights and storage for four phone numbers.



ProModem 2496/R.... $215

SCSI Station & Color Monitor

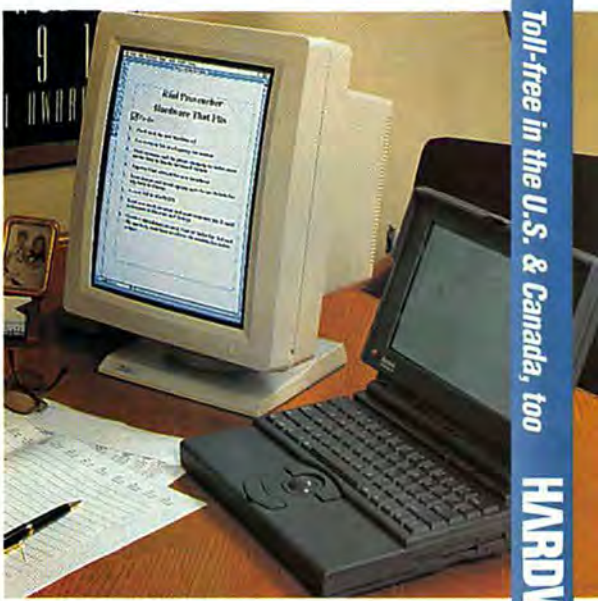
Affordable 14" Seiko color monitor for your PowerBook.

Seiko 14" Color Monitor..... $579
Seiko Monitor & SCSI Station w/ Computer Care (4 Mb Card)..... 1249

PowerBook Cases

The case above is made of genuine leather; cases shown at bottom of page are constructed of 1000 denier cordura nylon fabric and high-density foam, for maximum computer protection.

Executive Leather Attache $139
Companion Case 59
SuperBrief Carryall (double-sided case) 79



SCSI Station & Full-Page Display

A complete system...requires no video card! Flicker-free 15" RealTech portrait display has 870 x 640 resolution, 80 dpi. Vertical refresh rate of 75 Hz. Flat CRT; anti-glare screen.

SCSI Station & 15" Display..... *Lease: $24/per mo.* $879
15" Full-page Display 449



Our Companion Case and double-sided SuperBrief Carryall look great while they protect your PowerBook.

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

40 Sluggish performance



Applied Engineering

Put the power of a Quadra into your Mac!

Based on the same (68040) processor as the Quadra. Your programs will fly at incredible speed, saving you time and frustration.

TransWarp SE (40 MHz w/16-FPU)	$959
TransWarp LC (25 MHz)	459
TransWarp LC (50 MHz)	1059
TransWarp LC (50 MHz w/16-FPU)	1319
TransWarp 040 (25 MHz)	1749
QuickSilver	189
1.44 SuperPlus Drive	279
QuadraLink	199

TELL US HOW MUCH SPEED YOU NEED. WE'LL MATCH YOU WITH THE RIGHT ACCELERATOR FOR YOUR MODEL OF MAC.

Daystar Digital

PowerCache Accelerators

The Daystar PowerCache card will make your Mac II, IIcx, IIx, IIci, LC or SE/30 run like a Quadra — but without Quadra's fast-mode compatibility problem.

In fact, the PowerCache card is guaranteed 100% compatible with all your utilities and applications — and it doesn't take up any NuBus slots.

33 MHz Accelerator	$529
40 MHz Accelerator	739
50 MHz Accelerator	1065
ComboCache Card for IIsi	209
PowerMath Card for LC	109
Equalizer Card for LC	159
50 MHz Accelerator Card for IIcx	1065

PowerCache Adapter

Lets your Mac Classic or SE in on the fun! Provides space to install up to 16 Mb of RAM — and use the amazingly fast and compatible Universal PowerCache card.

PowerCache Adapter $40

Fusion Data Systems

TokaMac Accelerators

TokaMac's 68040 accelerators provide high-speed performance for the Mac IIci, IIsi, and LC. The same processor used in the Quadras can increase performance up to 300% for graphics and multi-media programs...or up to 600% when you're number-crunching!

TokaMac IIci	$1409
TokaMac IIsi	1409
TokaMac LC	1075



Quadra 900 Overdrive

Add an accelerator!



Newer Technology

fx Overdrive Accelerator

Variable speed accelerator runs up to 25% faster than a stock IIfx. Switches between 40, 45 and 50 MHz without restarting.

Mac IIfx Overdrive *$459*

Quadra 900 Overdrive Accelerator

Increases performance by up to 32% by accelerating the CPU from 25 MHz to 33 MHz. Requires only 80ns or faster SIMMs. Easy to install; just snap into place!

Quadra 900 Overdrive *$249*

Peripheral Land (PLI)

Quick SCSI Accelerator

A SCSI-2 NuBus host adapter with disk mirroring — improves your SCSI performance by up to 300%. Achieve up to 4.4 Mb per second sustained transfer rate (depending on the hard drive). Partitioning allows a smaller capacity drive to be mirrored into a partition of a larger capacity drive. *SCSI-1 compatible to work with your existing SCSI devices.*

Quick SCSI Accelerator *$339*

Radius

Rocket Accelerators

NuBus-based accelerators for the Mac II family. The 25 MHz Rocket 25i is powered by a 68LC040 processor.

The 25 MHz Rocket and 33 MHz Rocket 33 are powered by a 68040 processor, which includes an integrated math-coprocessor. All three include 8 SIMM slots for up to 128 Mb of DRAM, an 040 PDS slot, and QuickDraw and display-list acceleration software.

Radius Rocket 25i *$1239*
Radius Rocket *1649*
Radius Rocket 33 *2069*



If you want optimum speed, call our turbo-charged sales team (a few of them are shown here). Seated: Dona, Gina, Barbara. Standing: Jim, Don, Mike, Cecil.

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

42

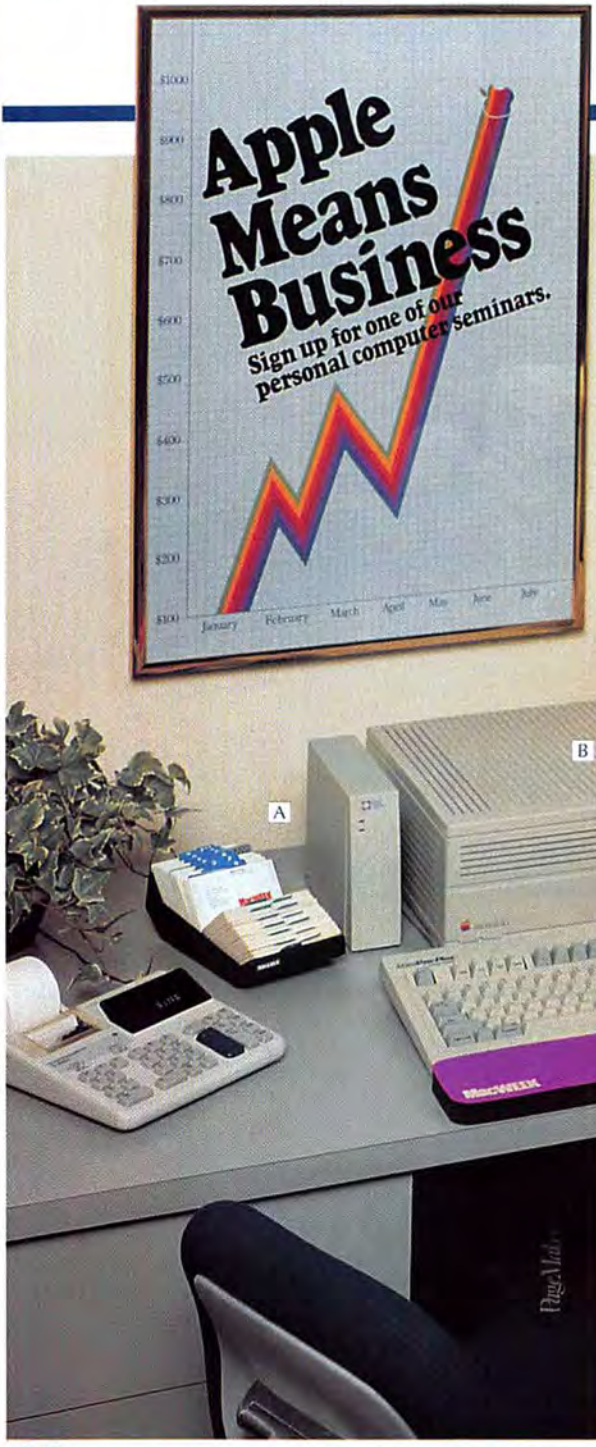


Jim
(Sales)

WHAT'S IN A NAME?

Ben Hardeman owns a nameplate-manufacturing company. To express his thanks for Jim's years of support and follow-through, Ben sent him a top-of-the-line bronze nameplate for his desk. "You've been extremely helpful through the years.... I always depend on you to give candid advice on which options are really best for our needs."

If you need an all-purpose business workstation, we can help you get back to the basics.



A	240 Mb hard drive *Lease: $21/per mo.*	*$769*
B	Macintosh IIci w/5 Mb RAM	
C	21" RealTech grayscale monitor *Lease: $20/per mo.*	*795*
D	Key Tronic MacPro Plus extended keyboard	*139*
E	Silhouette Trackball	*79*
F	Seiko Smart Label Printer Plus	*175*
G	RealTech Laser printer w/2 Mb RAM *Lease: $47/per mo.* Cassette feeder & tray	*1695* *199*

★★★★½

Reprinted from MacUser, September 1992. Copyright ©1992, Ziff Communications Company.

★★★★½

"The RealTech features not just a genuine Adobe interpreter, but also a PostScript Level 2 raster image processor (RIP), which earns it more than a few points for forward compatibility."

— Publish Magazine, Feb. 1992

See pages 46-47 for complete information about the RealTech Laser.

Ask about our
LEASING PROGRAM
Toll-free information:
1-800-364-LESS

"My art department is in love with our RealTech Laser. It cut our printing times dramatically and increased our productivity.

Your sales group is top-notch. They are friendly, helpful and know what they are talking about. It's a pleasure to have a salesperson who can actually answer technical questions and not just quote prices.... Based on the sales support alone I know I don't need to call anyone else. Please keep up the good work and pass along my compliments to your team."

— Richard Wilson, Wilson & Wilson

We help you solve the equation of price, function, and affordability.



Paul is well known for his ability to solve customers' problems



Do you create spreadsheets, charts and graphs...or write a company newsletter...or print lots of sales letters? Give us a call (toll free) and explain what kind of work you do, and the speed and level of quality you need in a monitor and printer. We'll work with you, evaluating your needs, exploring different combinations of equipment, examining the alternatives. Maybe the answer to ultimate productivity for you is the workstation shown above. And maybe not! We'll only recommend what makes sense for your needs and your budget.

Basic business workstation. *(Includes Macintosh IIci with 5 Mb of RAM, 240 Mb hard drive, RealTech 21" Trinitron grayscale monitor, and Key Tronic MacPro Plus extended keyboard. Also see individual pricing.)*

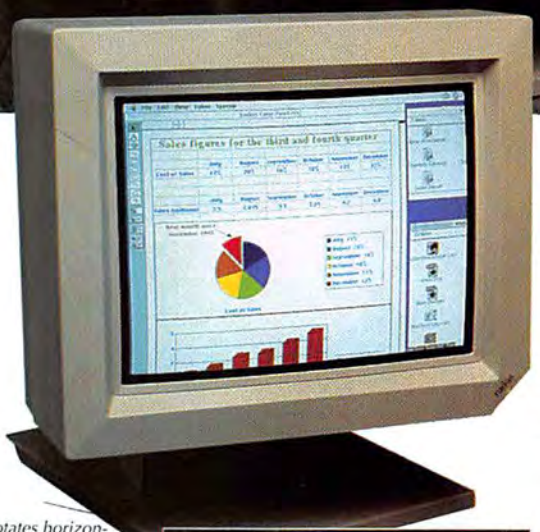
Lease: $180/per mo. **$6552**

1-800-364-FITS *Toll-free in the U.S. & Canada, too*

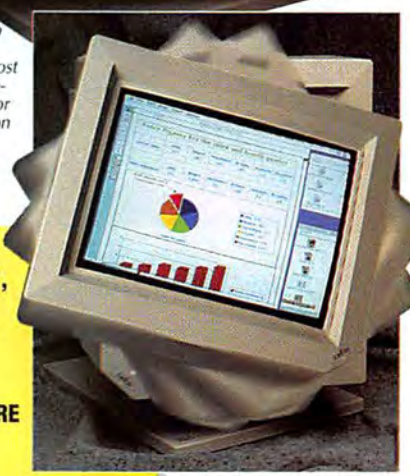
HARDWARE THAT FITS **HOURS:** *8 am to 7 pm CST*

Functional, affordabl





Rotates horizontally or vertically so you can view your document at the most comfortable, convenient angle. Ideal for people who work on spreadsheets and charts.



radius

$829

Lease price: $23/mo.

15" Color Pivot/LE

- *ergonomic, full pivoting design*
- *832 x 624 resolution*
- *78 dpi, 72 Hz refresh rate*
- *portrait and landscape orientation*

A low-cost 15" display solution for users who require a productive color desktop for business applications. You can view your documents in portrait or landscape orientation — whichever you need. Includes a Radius Color Pivot video interface for 256 colors. Full pivoting, ergonomic design and excellent image focus and clarity are standard features. This display is compatible with Macintosh Quadra, II series, LC and SE/30 computers.

Color Display/21	$1999
PrecisionColor Display/20	2799
PrecisionColor 8 Interface	519
PrecisionColor 24X Interface	1669
Radius TV System	1509
Color Pivot/Pivot	1299/739
Color Pivot Interface	519
Pivot Interface	259
Two-page Display/21	1199
Two-page Display Interface	89
PowerView	509
PrecisionColor Calibrator	449

SEE 6-7, 16-17, 24-25, 26-27, 36-37 AND 42-43 FOR MORE MONITORS!

arge-screen color!



SUPERMAC™

20" SuperMatch Color Display

$1499

Lease price: $41/mo.

- *1024 x 768 resolution*
- *24- or 8-bit color*
- *72 dpi, 75 Hz refresh rate*

High resolution, impeccable color-realism and compatibility. Complete color matching system makes this monitor a good choice for color publishers and graphic designers who want an affordable full-page display. Hitachi tube.

Plenty of room for opening a full page document or multiple windows, plus extra viewing area. With its 72 dpi pixel density and high resolution, it ensures that your text and graphics will appear the same in print as on the screen.

20" SuperMatch Dual-Mode Trinitron®

$2499

Lease price: $68/mo.

- *1024 x 768 (20" WYSIWYG)*

or...

- *1152 x 870 resolution (21" 2-page viewing)*
- *24- or 8-bit color*
- *true-to-life white point for exceptionally accurate color viewing*

Ideal for graphics professionals who need to switch from editing to illustration to layout. Choose from 1024 x 768 WYSIWYG resolution to 1152 x 870 two-page mode for working on two-page projects. With selected SuperMac graphics cards, you can even switch "on the fly" without having to leave your application or restart. Trinitron® display technology brings you exceptional color realism, because it's set to a white point of 6500° Kelvin, which eliminates the blue tint of other monitors. Meets the most stringent recommendations available for magnetic emissions.

SuperMatch 17"	$1179
Platinum 21"	1049
Platinum 20"	949
Spectrum/24 III or Spectrum/8-24 PDQ	829
Spectrum/8 NuBus/LC/IIsi	419/499/499
Monochrome Card	329
SuperMatch Display Calibrator	499
Thunderstorm	829
Video Spigot NuBus/IIsi/LC	369/329/249
Video Spigot Pro	1079
Spigot & Sound/Spigot & Sound Pro	479/1159

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS HOURS: 8 am to 7 pm CST

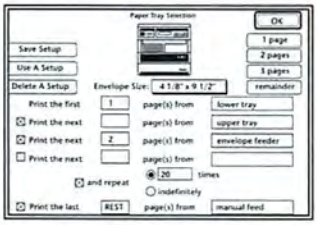
46



Michael
(Sales)

THE BEST VALUE FOR HIGH-QUALITY PRINT ON A SMALL BUDGET

Feature for feature, the RealTech Laser outperforms every other printer of its type. If you need to print complex graphics on a daily basis or large quantities of high-quality, time-sensitive documents, the RealTech Laser is the ideal choice. And for people on a network who need a fast, accessible printer — it's the perfect solution!



You can specify up to 4 paper changes from the menu — without ever leaving your chair!

- *RISC processor*
- *Adobe PostScript Level 2*
- *SCSI port*
- *9 pages per minute*
- *300 dpi*
- *expandable to 10 Mb*
- *easy-to-install consumables*

Ask about our
LEASING PROGRAM
Toll-free information:
1-800-364-LESS

The RealTech Laser: the original PostScript Level 2 printer. First of its kind, and the best value in its class.

$1595

Lease price: $44/month

RealTech™



★★★★ *MACWORLD MAGAZINE September 1992*

Isn't it about time to let the RealTech Laser give a star performance in your office?

Based on Adobe PostScript® Level 2...
the next generation of Adobe's page description language, which has become the industry standard for defining pages of integrated text and graphics. It contains a number of performance, function and print quality enhancements that save printing time and improve output quality.

PostScript® Level 2 is compatible with all current application software that supports the PostScript® language. In addition, PostScript® Level 2 offers new capabilities, including forms handling, graphic patterns support, and new half-tone algorithms.

Genius-level memory.
One pool of memory is available for all resource needs. Memory is dynamically allocated and automatically reclaimed; no arbitrary memory restrictions exist. Disk space management is improved to eliminate fragmentation and improve transfer of information from the hard disk to RAM.



(Elimination of fragmentation = memory allocated dynamically and automatically reclaimed)

Reprinted from MacUser, Sept. 1992. Copyright ©1992, Ziff Communications Co.

Why settle for second best when you can buy the winner?

WINNER
MacWEEK
1991
TARGET AWARD

★★★★½

"The RealTech features not just a genuine Adobe interpreter, but also a PostScript Level 2 raster image processor (RIP), which earns it more than a few points for forward compatibility."

— PUBLISH MAGAZINE
February, 1992

RealTech Laser	QMS PS 410	NewGen Turbo PS/300P	GCC BLP II	HP LaserJet IIIP
16:39	17:42	17:54	Unable to finish	31:06
★★★★½	★★★	★★	★★★	★★½

Print times based on a 5-page, graphics-intensive Persuasion document that included grayscale TIFF files, EPS files, text in several fonts and sizes, solid black areas, and reverse type.

See MacUser, September 1992, for complete information about these printers' performance.

The RealTech Laser is the number one choice of Fortune 100 and Fortune 500 companies for networking and workgroup publishing tasks.

The ideal solution for networking and mixed-platform environments.
The RealTech Laser's three interface ports (Appletalk® RS-422, IBM PC parallel, and RS-232-C) can be used simultaneously. It can be used in mixed-platform environments, as well as Macintosh or PC.

The RealTech Laser can be assigned either PostScript® or LaserJet II emulation, making it the ideal network printer. A Hewlett Packard LaserJet Series II emulation allows it to be used with non-PostScript applications software.



Designed for multi-user use.
The RealTech Laser's speed and quality make it a particularly appropriate choice for multi-user printing environments. Its recommended duty cycle is 5,000 pages per month. A second 250-sheet cassette feeder is available ($199), as well as an optional envelope feeder.

Faster than non-RISC printers.
The RealTech Laser's high-perfomance Weitek RISC processor and ATM font rendering technology enable it to print complex documents faster than other non-RISC laser printers in its price range. ATM font rendering technology builds raw type characters 4 to 5 times faster.

The RealTech Laser uses a new version of the Sharp printer engine that prints 9 pages per minute.

Expandable! Can be upgraded to 10 Mb of RAM.
The standard configuration includes a SCSI port and 2 Mb of RAM, upgradable to 10. ***The RealTech Laser is the only printer of its kind with this much RAM and hard disk expansion capability!***

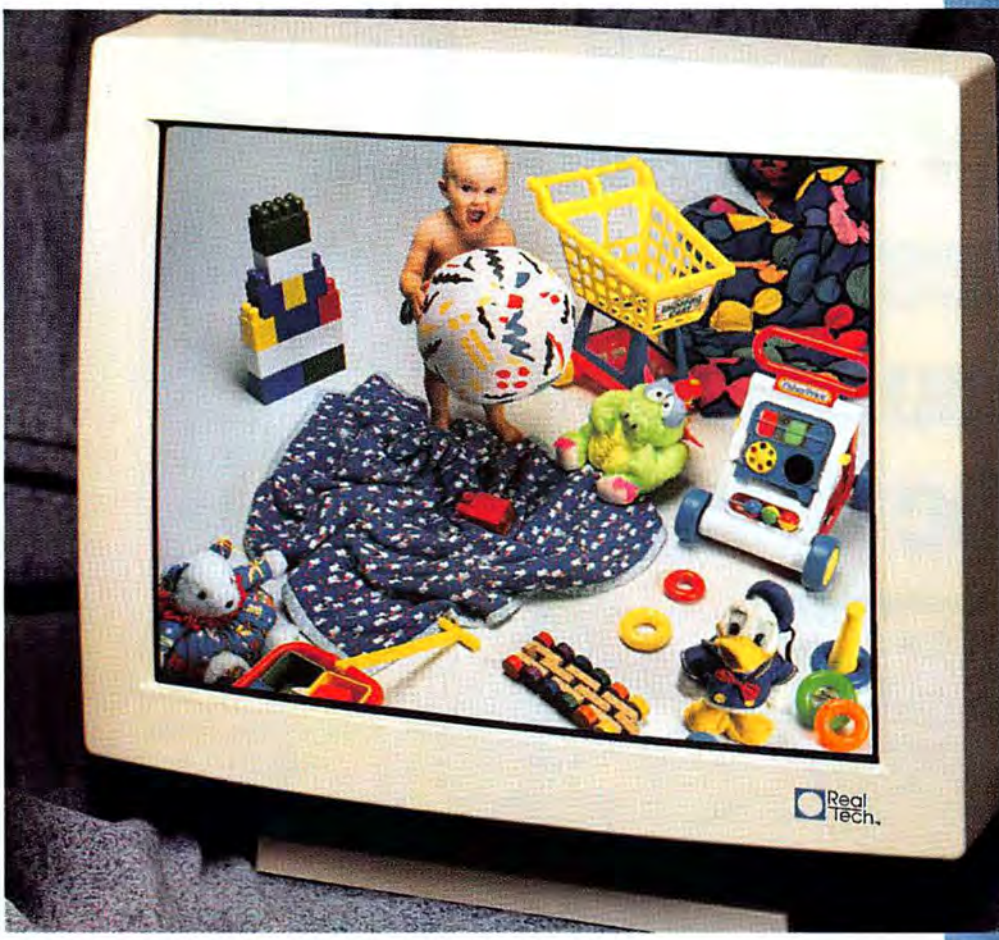
Now available with a second paper tray & cassette.

Optional 2nd paper tray & cassette feeder. *$299*

1-800-364-FITS Toll-free in the U.S. & Canada, too
HARDWARE THAT FITS
HOURS: 8 am to 7 pm CST

Real Tech™

RealTech...quality, value-priced solutions designed specifically for electronic publishing. From scanning through first-draft color proofing, RealTech is the affordable alternative to expensive pre-press systems. The RealTech line includes a color scanner with transparency option, color printers, color and grayscale monitors, and more!



RealTech 17" Multi-Mode Color Monitor **$995** Lease price: $27/mo.

- *Multi-mode*
- *Auto-syncs to 1024 x 768*
- *832 x 624 resolution*
- *Quadra-ready*

Have you ever heard of great color... multi-mode resolution...and a great price...all in the same monitor? Anti-glare, flicker-free screen reduces eyestrain caused from extended viewing. Tilt-and-swivel base allows you to adjust the monitor to a comfortable angle. 832 x 624 standard resolution; will auto-sync to 640 x 480 and 1024 x 768. Will interface with Quadras, and with popular video cards from RasterOps, Radius, and SuperMac.

RealTech 17" Multi-Mode Monitor w/24-bit Radius PC24XP Video Card *Lease: $41/per mo.* **$1495**

TABLE OF CONTENTS

HIGH-END GRAPHICS SOLUTIONS
The latest innovations in pre-press desktop technology *PAGES 4-13*

POWERBOOK SOLUTIONS
Macintosh PowerBooks & accessories for office or travel *PAGES 36-39*

BUSINESS SOLUTIONS
Monitors and printers for productive, cost-effective workstations *PAGES 42-48*

DESKTOP PUBLISHING SOLUTIONS
Intermediate graphic and multi-media solutions *PAGES 14-21*

STORAGE SOLUTIONS *PAGES 22-23, 34-35*

NETWORKING/COMMUNICATIONS SOLUTIONS *PAGES 30-33*

ACCELERATORS/PERFORMANCE SOLUTIONS *PAGES 40-41*

610 South Frazier • Conroe, TX 77301
Toll-free in the U.S. & Canada, too



ur operations team tests most ardware That Fits products fore shipping them to you. ey're conscientious, dedi- ted, and always willing to go e extra mile. Seated, left to ght: Doug and John. Standing: arcus, Mark, Jeremy.

SHIPPING

or a few extra dollars, e'll rush your order raight to your door vernight via Airborne xpress. If you need omething right away r just don't want to ait, ask about this reat service! dditional insurance nd handling charges re required for safe ipment of certain roducts; ask your ales/service partner. orry, we cannot ship .O.D. or to P.O. oxes.

BILLING

all for information on etting up a corporate .O. account. For roper billing, please rovide a street ddress; we cannot hip to post office oxes. If your company tax exempt in Texas, lease fax or mail us a opy of your ertificate. If you're rdering by credit card ver the phone, please ave your credit card andy. *Thanks!*

BUSINESS LEASING OPTIONS

1. **True Lease**...with 10% buy-out option
2. **Installment Lease**...with $1.00 buy-out option
3. **Speed Lease**...90- or 180-day terms, with buy-out or conversion to other leases
4. **20/20 Lease**...10% security deposit, 20 equal payments, 10% buy-out
5. **90-day Deferred lease**...no payment for 90 days; first and last payment in advance

Toll-free business leasing info:

1-800-364-LESS

All business leases are subject to credit approval. All lease payments in this supplement are based on the "True Lease" program at 48 months. Prices, lease prices, and rates are subject to change without notice.

NOTE: Minimum total lease payment is $50 per month. Business leases only (minimum length of time in business—two years). Sorry, no personal leases.



You can always count on our tech team to help you when you're in a jam. Seated, left to right: Paul and Craig. Standing: Chris, Tom, Dan, Mike, Dave.

We've got personality!

At Hardware That Fits, your order isn't taken by some lackluster, lackadaisical, lethargic clerk who merely wants to fulfill today's sales quota. A real person who actually cares about helping solve your problems will answer your call.



Our marketing communications team knows how important it is for you to understand the products you're buying. Seated: Baron, Holly. Standing: Réal, Lisa, Phil, Jeanne, Beth.

We Guarantee Your Satisfaction

If you don't like it, we'll buy it back.

If you aren't 100% satisfied with what you buy from us, call. Return it within 30 days of the shipping date and we'll refund your purchase price (minus consumables for printers.)

30-DAY MONEY-BACK GUARANTEE. Before returning merchandise, we must ask that you call our Customer Service Dept. toll-free to receive a returned merchandise authorization number (RMA). This number must be included with any products you return (within 30 days of the shipping date.) No C.O.D. returns, please. Thank you for your cooperation.

TECH SUPPORT

When you call with a problem, our highly trained, dedicated tech team makes it *their* problem. They don't rest until they've helped you solve it, because they know how important it is for you to keep your equipment up and running!

Toll-free tech support:
1-800-364-MACS

"Your tech support people just pulled me out of an awful situation with a two minute phone call. This is a growing business. I plan to buy more Macs, hard drives, monitors, software upgrades... and I plan to buy them from you."

— David Hayes
David Hayes Advertising



The RealTech Color 350 is fast becoming the number one choice of designers and ad agencies for first-draft color proofs.



TAKE ONE.

Use this supplement to help you choose equipment for your production.

If you're interested in the RealTech Color 350, we'll be happy to send you a sample color output to show you its quality.

1-800-364-FITS *Toll-free in the U.S. & Canada, too* **Fax: 1-409-539-4141** **HARDWARE THAT FITS** **HOURS: 8 am to 7 pm CST**

CIRCLE 199 ON READER SERVICE CARD.

Image Analyst ☆☆☆☆
Image Analyst is an image-processing program that lets you identify and analyze any element of an image. Measurements and statistics can be automatically or interactively generated from TIFF or PICT files or from captured video images. Manual is well illustrated but poorly written. Easy to learn. No programming is necessary. Version 7.1 reviewed. Version 8.0 shipping. Requires 68030 CPU or higher, System 6.03 or later, and 8 MB of RAM. $2,000. Automatix, 755 Middlesex Turnpike, Billerica, MA 01821. 508-667-7900. (July '90)

Image Grabber ☆☆☆☆
Image Grabber is an excellent DA screen-capture program. Can capture pull-down menus and convert 8- and 24-bit-color screens to 2-bit black-and-white files, saving huge amounts of memory. It has both real-time and delay modes. Captures in MacPaint and PICT formats. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $49; site licenses available. Sabastian Software, P.O. Box 70278, Bellevue, WA 98007. 206-865-9343. (May '90)

Mariah ☆☆☆☆
Formerly called PictureBase, Mariah is a powerful graphics librarian. Can store paint- and PICT-formatted items and attach keywords for later search and retrieval. Users of discontinued Curator program from Solutions, Inc., can also upgrade to Mariah. Version 1.2 PictureBase reviewed. Version 1.11 Mariah shipping. Requires Macintosh Plus or later and System 6.05 or later. $149; upgrade from PictureBase, $49; upgrade from Curator, $69. Symmetry Software Corp., 8603 E. Royal Palm Rd., Ste. 110, Scottsdale, AZ 85258. 800-624-2485 or 602-998-9106. (Sept '87) ★ '86 Eddy

MultiClip ☆☆☆☆
MultiClip is a much improved version of an already good product. It lets you have as many Clipboards as your hard-disk space allows, which makes many graphics and page-layout applications easier to use. New features simplify finding an image quickly. Version 2.0 reviewed. Version 2.1.7c shipping. Requires Macintosh Plus or later. $149. Olduvai Corp., 7520 Red Rd., Ste. A, South Miami, FL 33143. 800-822-0772 or 305-665-4665. (Oct '90)

Ofoto ☆☆☆☆☆
Ofoto is one-step gray-scale scanning software that's an absolute joy to use. Powerful, intuitive interface automates the scanning process. Provides excellent image quality and works with scanners from many manufacturers. Produces individual calibrations for a wide variety of printers and imagesetters, saving information about the devices' dpi, screen frequency, and other characteristics. Installation is tricky. Has minimal image-editing tools. Version 1.11 reviewed. Requires Macintosh Plus or higher with System 6.07 or later and a hard drive. $395. Light Source, 17 E. Sir Francis Drake Blvd., Ste. 100, Larkspur, CA 94939. 800-231-7226 or 415-461-8000. (Aug '92) ★ '91 Eddy

PictureBook ☆☆☆☆
PictureBook is an excellent Scrapbook replacement. It catalogs your Scrapbook and lets you resize and/or crop anything that can be copied to the Clipboard. Has a lot of power, and the interface is easy to use. Version 3.1 reviewed. Version 1.0 PictureBook+ shipping. Requires Macintosh Plus or later and System 4.1 or later; hard drive recommended. $129.95. Loop Software, P.O. Box 1249, Menlo Park, CA 94026. 800-288-7631 or 415-326-4803. (Sept '89)

PrePrint ☆☆☆☆
Intended as a sophisticated color-separation printing utility for PageMaker documents, PrePrint is similar in general function to Adobe Separator. PrePrint handles color TIFF and EPS files with few problems. Results can be unpredictable with PICT images. Version 1.0 reviewed. Version 1.5 shipping. Requires Macintosh SE or higher, System 6.05 or later, 2 MB of RAM, and a hard drive. $495; upgrade, $30. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Jan '91)

Screenshot ☆☆☆☆½
Screenshot is a simple, powerful screen-capture utility. Can precisely capture and save selected screen items, without extraneous pixels surrounding captured image. Can convert color images to black-and-white on the fly and can change image size at time of capture. Can leave the Screenshot window open to capture multiple images without repeatedly pressing "hot key." Images can be printed or saved immediately in bit-mapped paint, PICT, 24-bit color, Clipboard or Scrapbook, or Startup-Screen formats. Version 1.1 reviewed. $59.95. Baseline Publishing, Inc., 1770 Moriah Woods Blvd., Ste. 14, Memphis, TN 38117. 800-926-9677 or 901-682-9676. (Mar '91)

SmartScrap and The Clipper II ☆☆☆½
SmartScrap and The Clipper II are two useful DA utilities for graphics work. SmartScrap is a major enhancement to the standard Scrapbook DA. The Clipper provides a transparent Clipboard window that lets you resize or crop a graphic to the area in which it will be pasted. Version 1.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later and System 6.03 or later. $89.95. Portfolio Systems, Inc., 10062 Miller Ave., Ste. 201, Cupertino, CA 95014. 800-729-3966 or 408-252-0420. (July '87) ★ '87 Eddy

SnapJot ☆☆☆☆
SnapJot is a DA/INIT utility that lets you capture full or partial screens. Differs from similar products in that captured window remains on-screen within a real window, which you can use as you work. All or part of a screen, window, dialog box, or menu can be captured as a color or a black-and-white image. Supports PICT or paint formats. No way to scale or crop captured images or to save them as startup screens, but these features are available in other painting applications. Version 3.0 reviewed. Version 3.01 shipping. $59.95. Wildflower Software, 21W171 Coronet Rd., Lombard, IL 60148. 708-916-9360. (June '91)

VideoQuill ☆☆½
VideoQuill's purpose is to produce high-quality PICT- or TIFF-format type for video or multimedia presentations. Not wholly successful, despite nice effects such as blends and transparencies. Uses fonts only in its own format and can't convert Type 3 or Adobe Type 1 fonts. The Font Pack has 47 fonts to supplement the 2 that are provided, but this option raises the purchase price. Some text characters have been omitted, and aligning type is slow and difficult. Version 1.01 reviewed. Requires Macintosh II series with 32-bit-color QuickDraw, color display, and 2 MB of RAM. $695 with Font Pack. Data Translation, 100 Locke Dr., Marlboro, MA 01752. (508) 481-3700. (Feb '91)

GRAPHICS & DESIGN/CAD

Aperture ☆☆☆½
Aperture combines a CAD program with a database manager. Some of its numerous features are difficult to access, but generally the package is very useful. The database application is a decent flat-file manager, and the drawing portion of the package has color support, infinite zoom, and libraries, as well as other powerful tools. Version 3.0 upgrade adds relational-database capabilities. Version 1.02 reviewed. Version 3.0 Pro shipping. Requires Macintosh Plus or later; SE/30 or Mac II series with 2 MB of RAM recommended. $2,495; multiuser Networker version, $2,995. Graphic Management Group, Inc., 100-3 Summit Lake Dr., Valhalla, NY 10595. 800-346-6828 or 914-769-7800. (Apr '90)

Ashlar Vellum ☆☆☆☆
Ashlar Vellum 2.0 is a powerful 2-D CAD package for architectural and mechanical

MICE RATINGS ☆ ☆½ ☆☆ ☆☆½ ☆☆☆ ☆☆☆½ ☆☆☆☆ ☆☆☆☆½ ☆☆☆☆☆

drafting. Smart-cursor feature informs you of cursor's measured position relative to designated point on an object. Allows comprehensive control of line tools, resizable geometric shapes, and text. Supports ANSI Y14.5 drawing standard and calculates 2-D properties such as area, perimeter, and moment of inertia. Intelligent tools and symbols automatically adjust surrounding wall surfaces. Supports PICT, ASCII, IGES, and DXF file formats. Exports EPS, DXF, and DXB files. Over networks, files are compatible with Windows 3.0 version of program. Version 2.0 reviewed. Version 2.10 shipping. Requires Macintosh II series, 4 MB of RAM, and a hard drive. $1,995. Ashlar, Inc., 1290 Oakmead Pkwy., Ste. 218, Sunnyvale, CA 94086. 800-877-2745 or 408-746-1800. (Dec '91) ★ '89 Eddy

Ashlar Vellum 3D ⚘⚘⚘⚘

Vellum 3D is a highly-accurate 3-D-wireframe-CAD program with 2-D drafting capabilities. Doesn't offer hidden-line removal, and can't create shaded images as do surface and solid modelers. Particularly well suited to mechanical design, drafting, engineering, and architectural tasks. Utilizes intelligent-cursor feature called Z-Drafting Assistant to provide continuous feedback about precise cursor location. Offers easy-to-use on-screen "trackball" to rotate views of work in progress. Can create 2-D PICS animations of designed objects. Version 2.1 reviewed. Requires FPU-equipped Mac with System 6.03 or later, 4 MB of RAM, and a hard drive. $2,495. Ashlar, Inc., 1290 Oakmead Pkwy., Ste. 218, Sunnyvale, CA 94086. 800-877-2745 or 408-746-1800. (June '92)

AutoCAD ⚘⚘⚘½

Already a popular CAD program on PCs and UNIX machines, AutoCAD's latest Mac version sports an interface significantly improved over earlier attempts. Further refinement is needed, but the long list of powerful features makes this an ideal tool for 3-D engineering applications. Steep learning curve. Advanced Modeling Extension (AME) option adds sophisticated solid-modeling features and precise, automatic calculation of volume, weight, surface area, and other mass properties. Makes extensive and clever use of macro scripts that activate complex command sequences. Allows high-level customization using AutoLISP programming language, and many third-party applications are already available. Version Release 11 reviewed. Requires 68020 CPU or higher with math coprocessor, 8 MB of available RAM (16 MB using AME), System 7.0 or later, and a high-capacity hard drive; Quadra or display-list processor acceleration recommended. $3,500; AME, $495. Autodesk, Inc., 2320 Marinship Way, Sausalito, CA 94965. 415-332-2344. (Oct '92)

Blueprint ⚘⚘⚘

Blueprint is an affordable, easy-to-use 2-D-CAD program that's a simplified version of MiniCad+. It is particularly useful for architectural drafting. Has complete drawing tools and excellent control over colors and patterns. Lacks a programming environment and integrated spreadsheet and database features. Includes superb symbol libraries and good control over layering and Boolean operations. Dimensioning commands and DXF import/export capabilities are weak, but reliably exports EPS graphics. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later and a hard drive. $295; plotter driver, $300. Graphsoft, Inc., 8370 Court Ave., Ste. 202, Ellicott City, MD 21043. 410-461-9488. (Sept '91)

Claris CAD ⚘⚘⚘⚘

Claris CAD is an excellent choice for entry- or midlevel 2-D mechanical drafting. It's easy to master if you are proficient with MacDraw II. The most important new addition is a guide to location and construction of geometric features. Lacks an integrated spelling checker and offers only limited color support. There are special tools for architects, and mechanical engineers should like the well-implemented, ANSI-standard Geometric Dimensioning and Tolerancing system. Included Claris Graphics Translator converts between standard Mac and PC graphics formats. Version 2.0 reviewed. Version 2.0v3 shipping. Requires 2 MB of RAM. $899; Claris Graphics Translator, $299. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (Mar '91)

DesignCAD 2D/3D ⚘⚘⚘

DesignCAD 2D/3D is a capable 2-D-drafting program that supports 3-D solid modeling and surface rendering. Has a few rough edges. Point-orientation method of drawing takes some getting used to. Overwhelming screens with long menus and huge palettes. Version 1.0 reviewed. Version 3.01 shipping. Requires Macintosh Plus or later and System 6.05 or later. $299. DesignCAD, Inc., One American Way, Pryor, OK 74361. 918-825-4848. (Mar '90)

Dreams ⚘⚘½

Dreams is an easy-to-use drawing program with a straightforward interface. Offers color fills, automatic line measurement, and multicolor-pattern editing. Doesn't support Pantone colors. Can't convert text to outlines. Adequate for technical illustrators who need QuickDraw speed and PostScript precision but not high-end features. Version 1.1 reviewed. Requires Macintosh II series or higher with color display system. $599. Innovative Data Design, Inc. (idd), 135D Mason Circle, Concord, CA 94520. 510-680-6818. (Nov '92)

DynaPerspective ⚘⚘⚘⚘

Presentation was the strength in earlier versions of this 3-D CAD program. Necessary drafting capabilities have now been added, its rendering tweaked, and its animations made faster and smaller. You can use up to 16 drafting layers. DynaPerspective's limitation is its method for measuring relative distances. A powerful, versatile tool and a great value. Supports QuickTime and RenderMan. Version 2.01 reviewed. Version 2.33 shipping. Requires Macintosh II series or higher, 2 MB of RAM, and 8- or 24-bit video card; hard drive recommended. $995. Dynaware USA, Inc., 950 Tower Ln., Ste. 1150, Foster City, CA 94404. 415-349-5700. (Dec '90) ★ '90 Eddy

Generic CADD ⚘⚘⚘⚘

This 2-D CAD package is affordable and easy to use. Includes high-precision floating-point database that provides a virtually unlimited drawing environment and powerful zoom capabilities. Can read AutoCAD files except for contained 3-D data. Can't save files in AutoCAD's .DWG format. Supports Type 1 and TrueType fonts. Can open vector-draw or bit-map PICT files. Can export documents in PICT or EPS format. AutoSnap feature speeds alignment of multiple drawing objects. Includes Microspot's MacPlot plotter driver and an extensive symbol library. Version 2.0 reviewed. Requires Mac II series or higher with math coprocessor and 4 MB of RAM. $495. Autodesk Retail Products, 11911 N. Creek Parkway S., Bothell, WA 98011. 800-228-3601 or 206-487-2233. (Dec '92)

LANDesign ⚘⚘⚘⚘

LANDesign is versatile land-surveying software that simulates the way surveyors worked before they had Mac software to help them. All standard COGO (coordinate geometry) features are supported, and all objects can be named with both character identifiers and labels. This intelligent program is easy to use. Version 1.11 reviewed. Version 1.15 shipping. Requires Macintosh Plus or later; hard drive recommended. $595; Export Module, $300; Data Collector Module, $325. Compuneering, Inc., 113 McCabe Crescent, Thornhill, Ontario L4J 2S6 Canada. 416-738-4601. (Sept '89)

MICE RATINGS ⚘ ⚘½ ⚘⚘ ⚘⚘½ ⚘⚘⚘ ⚘⚘⚘½ ⚘⚘⚘⚘ ⚘⚘⚘⚘½ ⚘⚘⚘⚘⚘

MiniCad+ ♦♦♦♦
With a fast and logical interface, MiniCad+ has a Pascal-like macro language, an internal database, 2-D as well as 3-D graphics, a linked spreadsheet, and a low price. Has a MacDraw-like feel, but it may have the best 3-D capabilities among low-cost CAD programs. Good documentation. Graphsoft's tech support is helpful. Includes tutorial videotape. Version 3.0 reviewed. Version 4 shipping. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $795. Graphsoft, Inc., 8370 Court Ave., Ste. 202, Ellicott City, MD 21043. 410-461-9488. (Apr '91) ★ '90 Eddy

PowerDraw ♦♦♦½
PowerDraw is an easy-to-use 2-D CAD program with a host of features, including an interactive snap function that aids in geometry creation. Offers complete drawing tools and excellent control over colors, true vector-oriented patterns, and Boolean operations such as joins and intersections. Has full complement of dimensioning commands. Built-in import/export capabilities are limited to PICT files, but optional PowerDraw Translator handles a variety of graphics conversions. Includes built-in plotter driver that spools print files to disk. Version 3.0 reviewed. Requires Macintosh Plus or later and a hard drive. $795; PowerDraw Translator, $275. Engineered Software, 615 Guilford-Jamestown Rd., Greensboro, NC 27409. 919-299-4843. (Sept '91)

Precision ♦♦♦
Precision is a 2.5-D CAD program with some quirks. The Cut and Paste functions operate oddly, and many things don't work as expected. Powerful but slow. It freezes and crashes at times. When these problems are cleaned up, it should be superb. Version 1.2 reviewed. Requires SE/30 or Mac II series with 2 MB of RAM. $295. Innovative Systems, Inc., P.O. Box 461, 143 Shaker Rd., East Longmeadow, MA 01028. 800-222-1648 or 413-525-6500. (Apr '90)

VersaCad ♦♦♦♦
VersaCad is a powerful CAD program that doesn't show any of its DOS roots. Excellent element manipulation and full plotter support. Library user interface is crude. Version 1.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later. $1,995 Computervision (Personal CAD/CAM Business Unit), 100 Crosby Dr., Bedford, MA 01730. 800-488-7228 or 617-275-1800. (July '88) ★ '88 Eddy

GRAPHICS & DESIGN/CLIP ART

650 Megabyte Clip-Art Disk ♦♦♦
The 650 Megabyte Clip-Art Disk is a CD-ROM containing 182 scanned TIFF images and 886 mostly color EPS files in Adobe Illustrator 88 format. EPS graphics are of amateur quality; TIFF files are more useful. The quality of the scans is adequate, but many of the images are marred by washed-out colors or are too dark to be useful. $499.95. Media Clip-Art, Inc., 411 Narragansett Dr., Cherry Hill, NJ 08002. 609-795-5993. (Sept '90)

Artbeats ♦♦♦♦♦
Artbeats is a series of superb, high-tech EPS backgrounds. Packages include Dimensions 1 through 3, Potpourri, Natural Images 1 and 2, and Marble & Granite, which offer abstract, geometric, and natural images. Each package has about 20 full-page backgrounds, saved as both FreeHand and EPS files. These are complex backgrounds, often with sophisticated blends that demand RAM and take time to print (the results are worth it). $99.95 each. Artbeats, P.O. Box 1287, Myrtle Creek, OR 97457. 800-444-9392 or 503-863-4429. (Nov '90)

ArtClips ♦♦♦
ArtClips is a pair of EPS artwork collections that are generally well done but poorly organized. Includes sports, home, technology, and business themes. Version 1.0 reviewed. Version 2.0 shipping. $149. Olduvai Corp., 7520 Red Rd., Ste. A, South Miami, FL 33143. 800-822-0772 or 305-665-4665. (Aug '89)

ArtWare: Equestrian ♦♦
This collection of horse artwork is fun — and there's a fair amount of it — but the quality isn't suitable for professional publishing. $69.95. ArtWare Systems, Inc., 4011-121 Capital Blvd., Raleigh, NC 27604. 919-790-7722. (Aug '88)

Canned Art: Clip Art for the Mac ♦♦♦♦½
Canned Art: Clip Art for the Mac is a printed catalog of more than 15,000 images currently available on-disk. Most images are reduced, so several fit on a page. Excellent detailed index saves hunting through disks. Version 1.0 reviewed. Version 2.0 shipping. $29.95; sample disk, $10. PeachPit Press, 2414 Sixth St., Berkeley, CA 94710. 800-283-9444 or 510-527-8555. (Sept '90)

Click & Clip Illustrations ♦♦♦
The Click & Clip packages are EPS graphics with a wide variety of business and seasonal themes. Version 1.0 reviewed. $395; special selections also available. Studio Advertising Art, P.O. Box 43912, Las Vegas, NV 89116. 702-641-7041. (Aug '88)

ClickArt ♦♦♦♦
The ClickArt series consists of numerous MacPaint-format and EPS packages. Themes include business, sports, animals and nature, holidays, religion, and cartoons. Artwork is generally well drawn; some collections are a bit unfocused, but overall this is a good buy. MacPaint-format packages include a useful ClipOut DA and a HyperCard stack. MacPaint packages, $59.95 each; EPS packages, $129.95 each; Color Graphics for Presentations (PICT2 and EPS), $149.95. T/Maker Co., 1390 Villa St., Mountain View, CA 94041. 415-962-0195. (Nov '90)

Clipables: the EPS Graphics Library ♦♦♦♦
Clipables is an enormous collection of EPS artwork. The 1,100 images are well drawn and cover a wide range of topics. Favors variety over depth. Requires System 6.03 or later. $299.95 direct. C.A.R., Inc., 7009 Kingsbury, St. Louis, MO 63130. 800-288-7585 or 314-721-6305. (Nov '90)

Cliptures ♦♦♦♦
Cliptures is a series of EPS clip-art packages comprising two business packages, a sports collection, and a colorful and complete flags set. $129.95 per volume. Dream Maker Software, 925 West Kenyon Ave., Ste. 16, Englewood, CO 80110. 800-876-5665 or 303-762-1001. (Aug '89)

Collector's Editions I and II ♦♦♦♦♦
The Adobe Collector's Editions offer excellent selections of basic graphic elements for Illustrator users. Symbols, Borders & Letterforms contains a wide range of dingbats, borders, and two editable alphabets. Patterns and Textures provides more than 400 patterned fills, including standard patterns used in architecture, mapmaking, meteorology, and geology. Files are Illustrator documents and must be resaved in EPS format before being imported into other programs. Requires Adobe Illustrator. Symbols, Borders & Letterforms, $125; Patterns and Textures, $225. Adobe Systems, 1585 Charleston Rd., P.O. Box 7900, Mountain View, CA 94039. 800-833-6687 or 415-961-4400. (Nov '90)

Digit-Art ♦♦♦
Digit-Art is an overwhelming collection of EPS clip art available on floppy disk and on CD-ROM. Comes with a well-designed catalog of images. Over 20 volumes are available. Version 1.0 reviewed. Version 5.0 shipping. CD-ROM, $799; single volume (disk), $99; two volumes (disk), $168; three volumes (disk), $199. Image Club Graphics, Inc., 1902 Eleventh St. S.E., Ste. 5, Calgary, Alberta T2G 3G2 Canada. 800-661-9410 or 403-262-8008. (Aug '88)

Graphics Pak ♦♦♦♦
ArtWare's Graphics Pak is a large collection of clip art with uneven quality. The borders are the most elegant. Other

MICE RATINGS ♦ ♦½ ♦♦ ♦♦½ ♦♦♦ ♦♦♦½ ♦♦♦♦ ♦♦♦♦½ ♦♦♦♦♦

packages are available. Version 1.0 reviewed. $129.95. ArtWare Systems, Inc., 4011-121 Capital Blvd., Raleigh, NC 27604. 919-790-7722. (Aug '88)

Images with Impact! ‡‡‡‡‡

Images with Impact! has several collections of superb, imaginative EPS clip art. Package topics include business, general-purpose graphics and symbols, and people. Accents & Borders 1 (winner of a *MacUser* Editors' Choice Award) contains 270 design elements, including borders, frames, ornaments, symbols, and mortises; registered users receive a bonus disk of color artwork. Images are opaque, and most are strategically subgrouped for easy editing. Excellent manual. Business 1, $129.95; Graphics & Symbols 1, $99.95; Accents & Borders 1, $129.95; other selections available. 3G Graphics, Inc., 114 Second Ave. South, Ste. 104, Edmonds, WA 98020. 800-456-0234 or 206-774-3518. (Nov '90) ★ '90 Eddy

MacGallery ‡‡‡‡

MacGallery is a whimsical collection of MacPaint images, ideal for children's publications, newsletters, and invitations. The 400 original illustrations include holidays, food, sports, borders, animals, plants, babies, teddy bears, dinosaurs, and cartoon arms and legs. Four pieces of presized stationery in greeting-card, three-fold mailer, business-card, and certificate sizes. Excellent manual. $49.95. Dream Maker Software, 925 West Kenyon Ave., Ste. 16, Englewood, CO 80110. 800-876-5665 or 303-762-1001. (Nov '90)

MacGraphics ‡‡‡

MacGraphics is a collection of bit-mapped clip art on 13 thematic disks. Most pictures are full-page, and unfortunately, reproduction quality suffers when they are reduced. Version 3.0 reviewed. $225. GoldMind Publishing, 4994 Tulsa Ave., Riverside, CA 92505. 714-687-3815. (Feb '89)

Metro ImageBase Electronic Art ‡‡‡½

Metro ImageBase Electronic Art is a series of TIFF and EPS clip art from a pioneer of the clip-art industry. The traditional-looking images occupy lots of disk space. There are 18 volumes available. $145 per volume. Metro ImageBase, Inc., 18623 Ventura Blvd., Ste. 210, Tarzana, CA 91356. 800-525-1552 or 818-881-1997. (Aug '89)

Professional Photography Collection, Volume 1 ‡‡‡‡‡

This CD-ROM contains 100 color TIFF images. Each image comes in three formats: 24-bit high-resolution color, 24-bit low-resolution color, and 8-bit black-and-white. Strikingly clear, high-quality images. Includes printed catalog and a liberal rights policy. $149 direct. discimagery, 18 E. 16th St., New York, NY 10003. 212-675-8500. (Sept '90)

SwivelArt ‡‡‡‡½

SwivelArt was the first of several collections of 3-D images and fonts for use with Swivel 3D Professional or other programs. Includes read-only version of Swivel 3D Professional, serif and sans-serif 3-D fonts, a HyperCard stack for creating 3-D text, and more than 100 3-D maps, images of office equipment, and words and symbols commonly used in business presentations. Swivel 3D Professional can edit the images, or images can be exported in PICT or EPS formats to other graphics applications. Version 1.24 reviewed. $129.95; Maps I and II, $250 each; Viewpoint Collections (Cars, Air & Sea, Anatomy), $250 each. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Aug '91)

Totem Color Clip Art ‡‡‡‡½

Totem Graphics has 13 volumes of PostScript images in 24-bit color. Color blends and fine details look superb even when printed in black-and-white. The 13 categories emphasize animals and plants but also include holidays, food, sports, business, and people. Images are available in four formats and are fully editable. $125 per category; $995 for CD-ROM with 15 categories. Totem Graphics, Inc., 6200-F Capitol Blvd., Tumwater, WA 98501. 206-352-1851. (Oct '89)

Vivid Impressions ‡‡½

Vivid Impressions is cartoonish EPS clip art, some of it in color. Special Events contains 130 images, but many of them are slightly altered duplicates. Version 1.0 reviewed. $39.95. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (Aug '89)

WetPaint ‡‡‡‡‡

WetPaint is a series that contains massive quantities of well-drawn MacPaint graphics. The best-seller is Classic Clip Art. Other titles include Publishing, Animal Kingdom, Special Occasions, Industrial Revolution, Island Life, and All the People. Art styles range from line drawings to digitized images, and several packages contain images reminiscent of woodcuts and other "antique" graphics. MacTut is a unique collection of ancient Egyptian artwork along with hieroglyphic fonts. Each volume includes ArtRoundup and Pattern Mover DAs. Each volume, $89.95. Dubl-Click Software, Inc., 22521 Styles St., Woodland Hills, CA 91367. 800-775-2068 or 818-888-2068. (Sept '87)

Graphics & Design/Drawing

CA-Cricket Draw III ‡‡‡

CA-Cricket Draw is an entry-level, object-oriented PostScript drawing program that produces high-quality output. Easy to use. Has good object-manipulation controls, full selection of drawing tools, and a responsive Bézier pen tool that rivals high-end programs. Excellent color blends and fountains. Doesn't support multiple drawing layers. Doesn't do color separations. Can't convert text to outlines and lacks some controls for text formatting and display. Imports and exports PICT and EPS files, but EPS files cannot be edited. No auto-alignment feature. Version 1.0 reviewed. Requires Macintosh Plus or later, 2 MB of RAM, System 6.07 or later, and a hard drive; Mac II series or higher recommended. $249. Computer Associates International, Inc., One Computer Associates Plaza, Islandia, NY 11788. 800-531-5236 or 516-342-5224. (Nov '92)

Canvas ‡‡‡‡

Canvas is a rich QuickDraw drawing/painting program that features full Bézier curves; the cutting and joining of polygons; skewing, perspective, and distortion capabilities; auto-dimensioning; area and perimeter calculation; autotracing of bit maps; and full-color support. Excellent complement to high-end PostScript programs. Offers good handling of type and text. Supports gradient fills, plug-in tools, and multiple graphics-file formats. Creates and edits high-resolution bit maps to 2,540 dpi. Has slide-show capability. Modular program design lets you install just the features and tools you'll need. Supports QuickTime. Version 3.04 reviewed. Requires Macintosh Plus or later, System 6.05 or later, and a hard drive. $399. Deneba Software, 7400 S.W. 87th Ave., Miami, FL 33173. 305-596-5644. (Nov '92) ★ '89, '91 Eddy

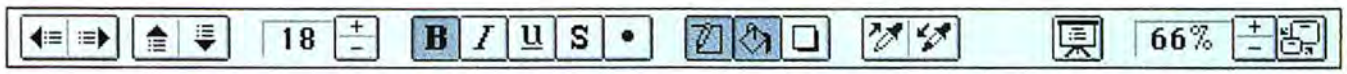
Design Your Own Home: Architecture ‡‡‡

Design Your Own Home: Architecture is a specialized, but easy-to-use, drawing program that produces simple housing floor plans and elevations. Has built-in parts libraries and many sample plans. Version 1.0 reviewed. Version 1.7 shipping. Requires Mac Plus or later. $99.95. Abracadata Ltd., P.O. Box 2440, Eugene, OR 97402. 800-451-4871 or 503-342-3030. (May '90)

Expert Home Design ‡‡‡½

Expert Home Design lets you try out your interior-decorating skills without a lot of heavy lifting. Essentially a drawing program, this package contains libraries of predrawn objects (sofas, lamps, tables, and so on) that you can alter to fit your specifications. Also includes some predrawn room plans. $49.95 Softsync, Inc., 800 S.W. 37th Ave. (North

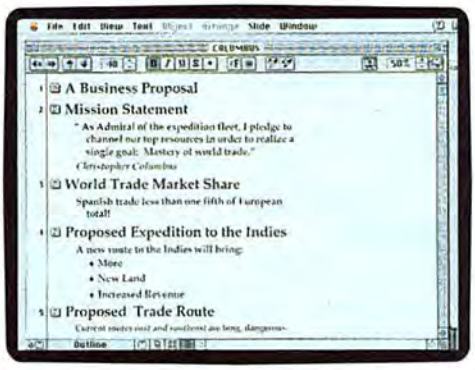
New PowerPoint 3.0 tools make power



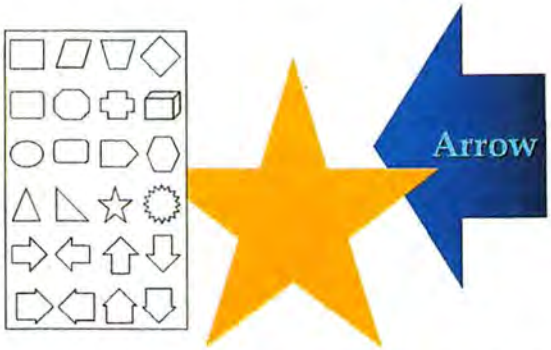
The toolbar. A powerful way to save time. Because now the most commonly used features are just a point and a click away.



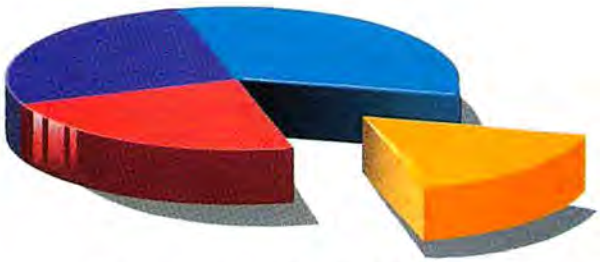
Output you have to see to believe. Creating sharp-looking overheads, 35mm slides or speaker's notes has never been easier.



WYSIWYG Outline view lets you create and work with the content of your entire presentation as an outline. Plus, full text formatting capabilities let you see and edit fonts, sizes and styles right in Outline view.



Presenting the Shape tool. Now making diagrams is quick and easy. There's a palette of 24 adjustable shapes to choose from.



Get graphical. 84 different graph styles to pick from, including 3-D graphs with rotation and perspective control.

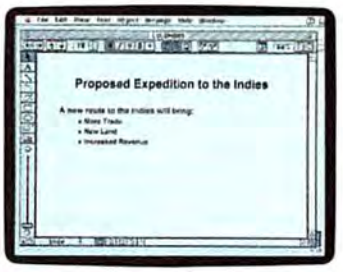
Now you have everything you need to make all your presentations as powerful as your ideas.

And that includes cross-platform support. Which means you can share files with PowerPoint 3.0 for Windows™ directly. No translation necessary.

But don't wait too long. Users of the PowerPoint program can only take advantage of this special $99

*For registered users of Microsoft PowerPoint Version 2.01 or earlier only. †Aldus Persuasion, Symantec MORE,™ CA-Cricket® Graph, CA-Cricket Presents® and DeltaPoint DeltaGraph users are eligi
Offer good only in the 50 United States. © 1992 Microsoft Corporation. All rights reserved. Printed in the USA. For more information inside the 50 United States, call (800) 426-9400; outside the United
Macintosh is a registered trademark and QuickTime and System 7 are trademarks of Apple Computer, Inc. Aldus and Persuasion are registered trademarks of Aldus Corporation. Cricket an*

Because powerful ful presentations.





With Anytime Templates, you can apply one of 160 professionally designed templates or use any other presentation as a template. Anytime.



For polished, professional electronic presentations use automatic build slides with flying bullets, transition effects, on-screen notation, sound and video.



For your copy of the Microsoft® PowerPoint® presentation graphics program version 3.0 upgrade, visit your nearest reseller or pick up the phone and push these buttons: (800) 426-9400.



This special $99 version upgrade offer is only good until January 31, 1993, for users of the PowerPoint program. Users of competitive products can upgrade for $129.†*



The PowerPoint presentation graphics program fully supports QuickTime™ and System 7,™ and is part of a complete line of powerful Microsoft applications for the Macintosh.®

version upgrade offer until January 31, 1993.* Users of competitive products, including Aldus® Persuasion,® can upgrade right now for only $129.†

So hurry up and get your hands on PowerPoint 3.0 for the Mac.® And put yourself in a position of power.

Microsoft®
Making it easier

e competitive upgrade. Proof of purchase required: title page of user's manual or Disk 1 of the program. Reseller prices may vary. Plus applicable sales tax and freight if ordering directly from Microsoft. d Canada, call (206) 936-8661. For information only: In Canada, call (800) 563-9048. Microsoft and PowerPoint are registered trademarks and Windows is a trademark of the Microsoft Corporation. ricket Presents are registered trademarks of Cricket Software. Symantec MORE is a trademark of Symantec Corp. Installation of PowerPoint version 3.0 for the Macintosh requires System 7 to run.

BA2

Tower), Ste. 355, Coral Gables, FL 33134. 800-933-2537 or 305-444-0080. (Dec '92)

FreeHand ⭐⭐⭐½

FreeHand is a professional-level color PostScript illustration package. Steep learning curve, but has streamlined, easy-to-navigate interface. Includes auto-trace, 100 levels of undo, freehand drawing, and powerful Blend command. Has improved text manipulation but relies on dialog box for input. Can convert text to outlines. New tool palettes (Layers, Colors, and Styles). Can edit in Preview mode. Allows Pantone, spot, or CMYK process color controls. Displays, separates, and prints 32-bit color TIFF images. Generates EPS files compatible with OPI (Open Prepress Interface) system but not with Illustrator. Version 3.1 reviewed. Requires Mac Plus or later, 2 MB of RAM, and a hard drive. $595. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Nov '92)

Illustrator ⭐⭐⭐½

Illustrator is a professional-level color PostScript graphics program from the company that defined the PostScript language. Powerful, compact toolbox offers many drawing tools with clever keyboard-activated options that may confuse novices. Highly responsive pen tool creates smooth, editable Bézier curves. Excellent typographical controls. Can convert text to outlines. Artwork in preview mode is not editable. New charting functions let you import detailed spreadsheet data as text, which Illustrator automatically converts into complex, easily customized charts (changes to imported numerical data also update the chart). Uses a freehand drawing mode or bit-mapped templates for detailed artwork. Version 3.2 reviewed. Requires Mac II series or higher, System 6.03 or later, and 4 MB of RAM. $595. Adobe Systems, 1585 Charleston Rd., P.O. Box 7900, Mountain View, CA 94039. 800-833-6687 or 415-961-4400. (Nov '92) ★ '88 Eddy

IntelliDraw ⭐⭐⭐⭐

This powerful new drawing program has many basic tools and some remarkably sophisticated extra features. Power often comes at the expense of slow performance or overwhelming complexity. Poor conversion of text to outlines. Lacks a real pen tool and can't export editable EPS files. Extensive object-linking capabilities, line and color style controls, support for multicolor gradient blends, multiple drawing layers, and interruptible screen redraw. Allows multipage documents. Powerful Symmetrigon tool allows complex symmetrical objects to be modified quickly. Tables of numerical object dimensions can be automatically updated as linked objects are manipulated. Supports slide shows and animations. Version 1.0 reviewed. Requires Mac Plus or later, 2 MB of RAM, System 6.05 or later, and a hard drive. $299. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Dec '92)

MacDraft ⭐⭐⭐⭐

MacDraft is an object-oriented drawing program that offers a rich set of features for a moderate price. Object rotation is precise, and it accesses the full spectrum of 16.7 million colors. Particularly appropriate for high-school or college-level introductory CAD classes or for small architectural/construction contracting businesses. Version 2.0 reviewed. Version 2.1 shipping. Requires Mac Plus or later, System 6.03 or later, and a hard drive. $399. Innovative Data Design, Inc. (idd), 135D Mason Circle, Concord, CA 94520. 510-680-6818. (Oct '90)

MacDraw II ⭐⭐⭐

MacDraw II updates the venerable, popular, object-oriented drawing program. Easy to use. Supports 8-bit color import and export, including PICT II format. Users can upgrade to new version, MacDraw Pro. Version 1.0 reviewed. Version 1.1v2 shipping. Requires Macintosh Plus or later and a hard drive. $199. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (Nov '88) ★ '85 Eddy

MacDraw Pro ⭐⭐⭐½

This updated version of Claris' popular illustration program offers an elegant, intuitive interface and a variety of basic tools. Provides precise text manipulation, a range of file-translation and -import capabilities, support for 32-bit-color images (including gradient shading), and complex charting. Can't convert text to outlines and lacks automatic features. Bezigon tool allows sophisticated design and editing of Bézier curves and polygons. Supports multiple layers, slide shows, and playback of QuickTime movies. Version 1.5 reviewed. Requires Macintosh Plus or later, 4 MB of RAM, System 6.03 or later, and a hard drive. $399; upgrade from MacDraw II, $99. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (Nov '92) ★ '85 Eddy

Michael's Draw ⭐⭐

This feature-rich, quirky, color drawing program offers a dizzying array of tools. Has surprising ability to do sophisticated script-based image processing of pixel-based artwork. Good control of text, patterns, and drawing layers. Confusing, nonstandard interface. Can't convert text to outlines. Poor documentation. Version 1.0 reviewed. Requires Macintosh Plus or later and System 6.05 or later. $99. Event One, 222 Del Norte Ave., Sunnyvale, CA 94086. 408-734-4358. (Nov '92)

Relational Objex ⭐⭐⭐

Relational Objex (formerly called Paradigm) is a drawing program with a difference. It performs relational drawing, in which each point's position depends on the location of other points — if you move a point, the rest of the drawing reacts correspondingly. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later. $240. SoftStream International, Inc., 10 Twin Ponds Dr., S. Dartmouth, MA 02748. 800-262-6610 or 508-991-4011. (Mar '90)

Sprout! ⭐⭐⭐⭐

Sprout! is a specialized drawing package that lets you design a vegetable garden appropriate for your climate region. Includes a report function that lets you print out garden layouts, calendars, and shopping lists. Doesn't help with the weeding. $79.95. Abracadata Ltd., P.O. Box 2440, Eugene, OR 97402. 800-451-4871 or 503-342-3030. (Dec '92)

Streamline ⭐⭐⭐

Streamline is a dedicated PostScript auto-trace package. Can quickly produce nearly print-ready traces with little tweaking. Retains original scanned images' black-and-white values. Final touch-ups must be completed in Illustrator or a similar program. Continuous-tone photos aren't usually worth the trouble. Version 1.0 reviewed. Version 2.0 shipping. Requires Mac Plus or later and System 4.2 or later; 2 MB of RAM recommended. $195. Adobe Systems, 1585 Charleston Rd., P.O. Box 7900, Mountain View, CA 94039. 800-833-6687 or 415-961-4400. (Nov '89)

GRAPHICS & DESIGN/FONTS & TYPOGRAPHY

ASCII Chart ⭐⭐⭐½

ASCII Chart is a DA that shows all 256 characters for a font. Fonts can be easily changed with the Font menu. Can display characters at 72 points. Quickly finds hidden characters, keystrokes, and hex equivalents. Doesn't print. Version 2.0 reviewed. Version 4.2 shipping. Shareware (Jon Wind), $10; available from online services such as ZiffNet/Mac. (Oct '90)

ATM (Adobe Type Manager) ⭐⭐⭐⭐⭐

Adobe Type Manager is a must-have utility that creates smooth PostScript type fonts at any size on-screen and when printed on QuickDraw printers such as Apple's ImageWriter II. Not quite perfect (has some problems with Microsoft Word and smaller point sizes) and has slow performance on 68000-based Macs.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Version 1.01 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $99. Adobe Systems, 1585 Charleston Rd., P.O. Box 7900, Mountain View, CA 94039. 800-833-6687 or 415-961-4400. (Feb '90) ★ '89 Eddy

Classic Textures ⭐⭐⭐

Classic Textures is an advanced implementation of TeX, a popular standard among code-based typesetting programs. Used extensively for complex long-document publishing, especially in the legal profession and with large databases. Handles mathematical typesetting well. Good for people trained on mainframes in the early days. Steep learning curve. Version 1.0 reviewed. Version 1.5 shipping. Requires Macintosh Plus or later with 2 MB of RAM. $695; education-discount price, $495. Blue Sky Research, 534 S.W. Third Ave., Portland, OR 97204. 800-622-8398 or 503-222-9571. (Apr '88)

Evolution ⭐⭐⭐

Evolution is an easy-to-use conversion utility for translating fonts among Type 1, Type 3, and EPS formats. Doesn't produce AFM (Adobe Font Metrics) files, and fonts are unhinted. Sensitivity controls help with difficult conversions, and Evolution can output character sets as printer fonts. Version 1.02 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, System 6.04 or later, and a hard drive. $79. Image Club Graphics, Inc., 1902 Eleventh St. S.E., Ste. 5, Calgary, Alberta T2G 3G2 Canada. 800-661-9410 or 403-262-8008. (May '91)

Fontina ⭐⭐⭐⭐

Fontina greatly enhances a font menu by showing all your fonts simultaneously, in multiple columns if needed. No scrolling is required. Correctly organizes font families. Can show fonts in any face and size. Trouble-free, and performance is excellent. Knapsack feature lets you put favorite fonts at top of menu. Version 1.0 reviewed. Requires Macintosh Plus or later. $69.95 direct. Eastgate Systems, P.O. Box 1307, Cambridge, MA 02238. 800-562-1638 or 617-924-9044. (Sept '90)

FontMonger ⭐⭐⭐½

FontMonger is a robust font-alteration tool that can convert fonts among PostScript Type 1, Type 3, and TrueType formats. Alterations include small caps; inferior, superior, and slanted characters; and fractions and other composite characters. Characters from different fonts can be combined into a single font, and EPS images can be imported as characters. Alteration interface is excellent, but conversion dialog boxes are often confusing. Can export character shapes as EPS or PICT outlines; PICT images are frequently unusable. Incomplete manual. Version 1.03 reviewed. Version 1.5 shipping. Requires System 6.03 or later and 2 MB of RAM; hard drive recommended. $149.95. Ares Software, P.O. Box 4667, 561 Pilgrim Dr., Ste. D, Foster City, CA 94404. 800-783-2737 or 415-578-9090. (Nov '91)

Fontographer ⭐⭐⭐⭐⭐

Fontographer is an excellent PostScript-font editor/generator. Features include an integrated screen-font editor, autotracing, a pen tool, and automatic or editable hinting. Can create PostScript and TrueType fonts, and supports Adobe's Multiple Master format. Features two pressure-sensitive freehand drawing modes that work well with digitizing tablets such as those from Wacom and CalComp. Can scale fonts mathematically or automatically interpolate between two different font weights, although results normally require some touching up. Easy to learn but powerful enough for demanding pros. Version 3.5 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $495. Altsys Corp., 269 W. Renner Rd., Richardson, TX 75080. 214-680-2060. (Oct '92)

FontSizer II ⭐⭐⭐

FontSizer II creates high-quality screen fonts of any downloadable PostScript typeface in sizes up to 96 points. Excellent utility for producing large font sizes with true WYSIWYG. Version 1.7 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, System 5.1 or later, and a PostScript printer. $99.95. American Microelectronics, 1611 Headway Cir., Bldg. 3, Austin, TX 78754. 512-339-0001. (Apr '89)

FontStudio ⭐⭐⭐⭐

FontStudio provides a fully integrated environment for typography on the Mac. If you want a font-production system, FontStudio might be irresistible, because of its ability to store character parts in a library, its excellent bit-map editor, and its strong kerning-pairs interface. Supports Adobe Type 1, Bitstream, Fontographer, LetraFont, and TrueType fonts. Provides automatic and manual hinting plus automatic interpolation between two existing font weights. Lets you select either Adobe Type Manager, TrueType, or a built-in rasterizer to display outline characters during design process. Can import Illustrator 1.1 artwork or use PICT and TIFF files as templates. Interface is dense, precise, and sometimes confusing. Version 2.0 reviewed. Requires Macintosh Plus or later and a hard drive. $595. Letraset USA, Inc., 40 Eisenhower Dr., Paramus, NJ 07653. 800-343-8973 or 201-845-6100. (May '92) ★ '91 Eddy

Hermes & Tribune Fonts ⭐⭐⭐⭐

Hermes & Tribune Fonts are specially designed fonts that come in sizes up to 120 points. Optimized for the ImageWriter LQ, the LaserWriter IISC, and fax modems, these fonts look better than Apple's fonts and can replace Helvetica and Times. Requires a non-PostScript high-resolution printer. $44.95. Miles & Miles (Doug Miles), 704 N. Water, Ste. 1, Ellensburg, WA 98926. 509-925-5280. (Sept '89)

KernEdit ⭐⭐⭐⭐

KernEdit is an excellent kern-pair editor that lets you alter the kerning data for both PostScript and TrueType fonts. Word View feature greatly simplifies kerning-table creation. Maximum resolution is 1/1,000em. Version 1.06 reviewed. Version 2.0 shipping. $149; additional kerning-table packages, $95 each. Agfa Division, Miles Inc. (Type Products), 200 Ballardvale St., Wilmington, MA 01887. 800-227-2780 or 508-658-5600. (Apr '90)

LetraStudio ⭐⭐⭐½

LetraStudio is a type-customization program for creating headlines, logos, signs, and other display type. Can create unique distortion effects. Works with LetraFont typefaces and TrueType or Adobe Type 1 fonts. Lets you edit imported Adobe Illustrator drawings. Interface may seem awkward to some users. Exports files in Illustrator, EPS, and other formats. Can open multiple documents. Adequate color support. Version 2.01 reviewed. Requires Macintosh Plus or later and a hard drive. $249. Letraset USA, Inc., 40 Eisenhower Dr., Paramus, NJ 07653. 800-343-8973 or 201-845-6100. (Oct '92) ★ '88 Eddy

LetrTuck ⭐⭐⭐½

LetrTuck is a kerning utility that lets you add, delete, or modify the kern pairs for any installed screen font in the System file, Font/DA Mover suitcases, or QuarkXPress documents. Version 1.04 reviewed. Version 3.0 LetrTuck Plus shipping. $99. EDCO Services, 12410 N. Dale Mabry Hwy., Tampa, FL 33618. 800-523-8973 or 813-962-7800. (June '89)

Letterforms and Illusion ⭐⭐⭐⭐

Letterforms and Illusion is a set of fonts and figures that leads you into exciting typographic explorations. Includes a limited version of MacPaint. Requires Mac Plus or later. $39.95. W. H. Freeman & Co., 41 Madison Ave., New York, NY 10010. 800-877-5351 or 212-576-9400. (Mar '90)

MacTography Type Sampler and Type Listing ⭐⭐⭐⭐

The MacTography Type Sampler and Type Listing combination is a classic art director's

MICE RATINGS ½ 1 1½ 2 2½ 3 3½ 4 4½ 5

type book that has samples of all PostScript laser fonts. The material is searchable on-disk, but screen resolution is poor. The printed version of Type Sampler is the more valuable part of this package. Requires Mac Plus or later; Type Listing requires Microsoft Works. $75; one year of printed updates, $80. MacTography, 326-D N. Stonestreet Ave., Rockville, MD 20850. 301-424-3942. (Apr '90)

Metamorphosis Professional ⭐⭐⭐⭐

Metamorphosis Professional is a utility that converts fonts among PostScript Type 1, Type 3, and TrueType formats on the Mac. Can also produce PostScript fonts for the PC and NeXT platforms, TrueType fonts for the PC, and Fontographer databases. Can access PostScript fonts located in printer ROM and save them on your hard disk. Also can export EPS and PICT outlines of font characters. Elegant interface is powerful yet flexible. Can't create bit maps for TrueType-to-Type-1 conversions and can't convert Adobe Expert series. Version 2.01 reviewed. Version 2.04 shipping. Requires Macintosh Plus or later and System 6.03 or later; hard drive recommended. $149. Altsys Corp., 269 W. Renner Rd., Richardson, TX 75080. 214-680-2060. (Nov '91)

Publishing Packs ⭐⭐⭐½

Publishing Packs bundles three Adobe typefaces that work well together for specific publishing projects. The packages offer substantial savings over purchasing the typefaces individually, and the documentation has useful information on typeface characteristics. Requires Macintosh Plus or later. Publishing Pack 1 (Newsletters), $395; Publishing Pack 2 (Forms and Schedules), $475; Publishing Pack 3 (Presentations), $475. Adobe Systems, 1585 Charleston Rd., P.O. Box 7900, Mountain View, CA 94039. 800-833-6687 or 415-961-4400. (Feb '89)

SPECtacular ⭐⭐⭐⭐

SPECtacular is a flexible type-sampler program that prints a variety of handsome specimen sheets. Shows typefaces in one- and two-page layouts. Incomplete documentation. Version 1.1.6 reviewed. Version 1.2 shipping. $79.95. Omega Systems, P.O. Box 7633, Chico, CA 95927. (916) 894-6351. (Dec '91)

theTypeBook ⭐⭐⭐½

This simple type-sampler program includes four layouts: a specimen page; a key-caps table; a complete character set; and sample lines, which prints a two-line sample of each selected font. Provides a fast, easy way to compare installed fonts. No frills but offers lots of information about fonts and typography. Good support. Version 2.2 reviewed. Version 3.04 shipping. Requires Mac Plus or later with System 6.04 or later. Free from on-line services such as ZiffNet/Mac; customized version, $45; or send postage-prepaid disk mailer and an 800K disk. Golden State Graphics (Jim Lewis), 2137 Candis Ave., Santa Ana, CA 92706. 714-542-5518. (Dec '91)

TypeAlign ⭐⭐⭐⭐

TypeAlign is an INIT/DA utility that is helpful for DTP work if you use Adobe Type Manager. TypeAlign lets you quickly place text along circular, angled, or arbitrary paths. The program could use the Clipboard better, but the simple effects are easy to control, and the results are striking. Version 1.0.2 reviewed. Version 1.04 shipping. Requires Macintosh Plus or later, System 6.03 or later, ATM, and a hard drive. $99. Adobe Systems, 1585 Charleston Rd., P.O. Box 7900, Mountain View, CA 94039. 800-833-6687 or 415-961-4400. (May '90) ★ '89 Eddy

TypeChart ⭐⭐⭐⭐

This type-sampler program includes five well-designed pages containing useful typographic information. Overview page shows sample headline, standard and composite characters, sample paragraphs, and examples of type-style variations. Headline page shows a font in sizes from 16 to 127 points. Text page shows sample paragraphs in point sizes from 5 to 14 points. Allows alteration or replacement of sample text. Provides flexible printing options and excellent technical data about installed fonts. Version 1.5 reviewed. $99.95. Agfa Division, Miles Inc. (Type Products), 200 Ballardvale St., Wilmington, MA 01887. 800-227-2780 or 508-658-5600. (Dec '91)

TypeStyler ⭐⭐⭐⭐

This easy-to-use type-customization program lets you transform TrueType or Adobe Type 1 fonts into complex display type. Uses Bézier-curve editing controls to distort either individual letter characters or entire blocks of text. Supports 8-bit or 24-bit color and can output files as spot- or process-color separations. Supports RGB, CMY, or CMYK colors but not Pantone colors. Overprint feature handles color-registration problems when printing simple graphics. Letter Fusion feature quickly creates striking special effects such as graduated color fills. Includes Adobe Type Manager. Version 2.01 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $219.95. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (Oct '92) ★ '90 Eddy

World Class Fonts! ⭐⭐⭐⭐

World Class Fonts! are bitmapped screen fonts that come with three useful utilities, all the Mac the Knife fonts, and a lot more. Eight separate volumes are available. $89.95 per volume. Dubl-Click Software, Inc., 22521 Styles St., Woodland Hills, CA 91367. 800-775-2068 or 818-888-2068. (Oct '86)

GRAPHICS & DESIGN/MODELING & ANIMATION

Alias Sketch! ⭐⭐⭐

This high-end 3-D-modeling and rendering program includes several unusual features. It provides powerful NURBS modeling, many options for complex objects and vertex editing, and model-perspective control against scanned backgrounds. Slow and has a few performance bugs. Rendering quality is adequate, but texture-map positioning is difficult. Lacks animation capabilities. Version 1.02 reviewed. Requires 68020 CPU or higher with math coprocessor, System 6.05 or later, 32-bit QuickDraw, 8 MB of RAM, and a hard drive. $995. Alias Research, Inc., 110 Richmond St. E., Toronto, Ontario M5C 1P1 Canada. 800-447-2542 or 416-362-9181. (Sept '92)

Animation Works ⭐⭐⭐½

This suite of powerful, affordable software tools simplifies the creation of Mac-based animations. Can save animations as stand-alone sequences playable with included Movie Player application. Sequences are likewise playable by HyperCard stacks, using XCMD also included in this package. Macs equipped with RGB/NTSC conversion hardware and print-to-video software can output Animation Works movies to videotape. Version 1.0 reviewed. Requires 8-bit color display system. $199.95. Gold Disk, Inc., P.O. Box 789, Streetsville, Mississauga, Ontario L5M 2C2 Canada. 416-602-4000. (Nov '91) ★ '91 Eddy

ElectricImage Animation System ⭐⭐⭐⭐½

This high-end 3-D-modeling program offers excellent rendering quality and speed, control of type fonts and texture mapping, and alpha-channel support. Animation features are weak. Includes Mr. Font, a powerful text-extruding program. Has wide variety of file-import options. Uses hardware copy-protection. Inadequate documentation. Version 1.05 reviewed. Version 1.5 shipping. Requires 68020 CPU or higher with math coprocessor, System 6.05 or later, 32-bit QuickDraw, 8 MB of RAM, and a hard drive. $7,495. Electric Image, Inc., 117 E. Colorado Blvd., Ste. 300, Pasadena, CA 91105. 818-577-1627. (Sept '92)

FilmMaker ⭐⭐⭐⭐

FilmMaker is a powerful animation tool that includes five

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

separate applications: Mark, Animate, Color, Sound, and Present. It is limited to the animation process, so the original graphic images that become sequential frames in FilmMaker must be created in a painting or 3-D program and then imported as PICT, PICS, or EPS files. The program isn't optimized for precisely registered frame animation. Also, the interface seems incomplete and awkward. Version 2.01 reviewed. Requires Macintosh II series or higher with 5 MB of RAM, a hard drive, and 32-bit QuickDraw. $695. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Apr '91) ★ '90 Eddy

Infini-D ⭐⭐⭐⭐½

Infini-D packs modeling, rendering, and animation features into an easy-to-use 3-D-design package. Offers true object metamorphosis, free-form objects, ray tracing, SMPTE time-code animation, and multilayer surfaces. Well-integrated interface allows multiple views and light sources plus easy object editing. Rendering quality and speed are below average. Doesn't provide spline-based modeling tools. Sophisticated use of fractals creates realistic, randomly generated terrain. Surface maps can combine color, transparency, reflection, and glow effects. Animations can be exported to other programs. BackBurner option distributes rendering among networked Macs. Good documentation. Version 1.12 reviewed. Version 2.0 shipping. Requires 68020 CPU or higher, a math coprocessor, 4 MB of RAM, 32-bit QuickDraw, and a hard drive. $995; BackBurner, $395; group discounts available. Specular International, P.O. Box 888, Amherst, MA 01004. 413-549-7600. (Sept '92)

Life Forms ⭐⭐⭐⭐½

Originally developed for dance choreography, Life Forms is a 3-D human-figure animation program. Doesn't show fine details such as fingers and faces. Can save wire-frame animation scripts as PICS or QuickTime sequences. To create lifelike shaded human figures, scripts must be exported to Swivel 3D Pro for manipulation. Version 1.0 reviewed. Requires Macintosh Plus or later with 2 MB of RAM and System 6.05 or later. $495. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Sept '92)

MacRenderMan ⭐⭐⭐⭐

MacRenderMan generates photo-realistic color images from files created in 3-D programs and saves in RIB (RenderMan Interface Bytestream) format. Programs supporting RIB format include Macromedia Three-D, StrataVision 3d, and Swivel 3D Professional. Spools RIB files into a folder and processes in the background under MultiFinder. Supports 32-bit color and renders attributes such as transparency, surface textures, multiple light sources, natural or artificial light, reflected light, shadows, and motion blur. Complex and time-consuming to master, but provides superb high-resolution results. Version 1.1 reviewed. Requires Macintosh II series with 24-bit-color display, 5 MB of RAM, 32-bit QuickDraw, and a hard drive. Bundled with Showplace, $695; CD-ROM version, $495. Pixar, Inc., 1001 W. Cutting Blvd., Richmond, CA 94804. 510-236-4000. (Aug '91)

MacroMind Three-D ⭐⭐⭐

This easy-to-use 3-D modeling program has an excellent animation interface and supports alpha channels. Rendering quality and speed are good. Type extrusion and beveling capabilities are weak. Has a few bugs and sporadic performance problems. Version 1.01 reviewed. Requires 68020 CPU or higher with math coprocessor, System 6.03 or later, 32-bit QuickDraw, 8 MB of RAM, and a hard drive. $1,495. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Sept '92)

MacTOPAS ⭐⭐⭐

This 3-D-modeling program offers a variety of basic and advanced modeling tools, alpha-channel support, and very good rendering quality. Powerful controls for complex objects and vertex editing. Animation features and documentation are weak. Uses hardware copy protection. Version 1.01 reviewed. Requires 68020 CPU or higher with math coprocessor, System 6.05 or later, 32-bit QuickDraw, 8 MB of RAM, and a hard drive. $7,495. AT&T Graphics Software Labs, 8888 Keystone Crossing, Ste. 1490, Indianapolis, IN 46240. 317-844-4364. (Sept '92)

ModelShop II ⭐⭐⭐⭐½

ModelShop II is a powerful 3-D-modeling package. Extensive feature list includes support for unlimited drawing layers, Bézier-curve walls, text, precise measurements, shaded rendering, multiple light sources, and animation. Straightforward interface offers good selection of drawing tools plus easy control of viewpoint and mouse-operated walk through. Supports DXF and ClarisCAD file formats. Animation options include creation of stand-alone, self-running demos with sound. Version 1.2 reviewed. Requires Mac II series or higher with 4 MB of RAM, 32-bit QuickDraw, and a hard drive. $895. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Dec '91) ★ '91 Eddy

Pixar Typestry ⭐⭐⭐⭐

This 3-D-type-design package creates photo-realistic shaded objects based on TrueType or Type 1 fonts. Uses RenderMan shaders to generate excellent bit-map printed output or animations with striking motion-blur effects. Lacks copy/paste function and controls for kerning, letterspacing, and object alignment. Lets you select typeface, style, and character size, and then apply edge beveling, complex surface textures, and transparency. Type can be rotated, scaled, and extruded. Individual characters in a text block can have different characteristics. Provides wide range of controls for colored and special-effects lighting. Simple wall and floor backgrounds can show textures and shadows. Version 1.0 reviewed. Requires 68020 CPU or higher with math coprocessor, 4 MB of available RAM, and a hard drive. $299. Pixar, Inc., 1001 W. Cutting Blvd., Richmond, CA 94804. 510-236-4000. (Dec '92)

Presenter Professional ⭐⭐⭐⭐½

This powerful, high-end 3-D-modeling program offers a full range of object tools and very good rendering quality. Adequate animation capabilities. Supports RenderMan RIB standard and alpha channels. Includes spline-based modeler. Can automatically calculate object volume and surface area. Digital Clay feature uses vertex editing to easily modify nonuniform geometry of complex objects. VIDI Express hardware-acceleration option significantly reduces rendering times. Uses hardware copy protection. Version 1.1 reviewed. Requires 68020 CPU or higher with math coprocessor, System 6.05 or later, 32-bit QuickDraw, 8 MB of RAM, and a hard drive. $3,600; VIDI Express, $4,495. VIDI (Visual Information Development, Inc.), 16309 Doublegrove St., La Puente, CA 91744. 818-918-8834. (Sept '92)

PROmotion ⭐⭐⭐½

Unlike its predecessor AddMotion, the PROmotion animation package is not based on HyperCard. Good choice for novices. Provides solid feature set and unusual tricks for graphics pros. Uses path-based animation. Adequate painting and good sound-recording tools plus excellent options for scripting stand-alone interactive animations. Can export but not import QuickTime movies. Supports PICT and PICS formats. Good tweening and onionskin features to create and compare adjacent frames. Can send messages to HyperCard, Control Tower, and Frontier. Excellent controls for video output and VCR protocols. Bundled CD-ROM includes sample animations and components. Weak documentation. Version 1.0 reviewed. Requires Macintosh II series

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

or higher and a color display system. $395. Motion Works, Inc., 1020 Mainland St., Ste. 130, Vancouver, British Columbia V6B 2T4 Canada. 604-685-9975. (Nov '92)

Ray Dream Designer ⭐⭐⭐⭐

This midrange 3-D-design program offers fast ray tracing of 3-D models and support for alpha channels but no animation capabilities. Awkward interface and creation of multiple files hinders productivity, but speedy ray-traced renderings show detailed reflective surfaces, shadows, and transparency effects. Has good PICT and texture mapping. Useful Preview mode. Resulting 24-bit PICT files are close to photo-realistic. Image-rendering process can run in the background. May be inadequate for modeling convoluted surfaces or complex objects with exact surface definitions. DreamNet option distributes rendering among networked Macs. Version 2.02 reviewed. Version 2.03 shipping. Requires Macintosh II series with 4 MB of RAM, 32-bit QuickDraw, and a hard drive; coprocessor chip recommended for 68020 Macs. $895; DreamNet, $200 (group discounts available). Ray Dream, Inc., 1804 N. Shoreline Blvd., Mountain View, CA 94043. 415-960-0765. (Sept '92)

Sculpt 3D ⭐⭐⭐½

Sculpt 3D offers excellent rendering quality and spline-based modeling tools. Provides absolute-vertex and polygonal-face control of objects. Can model objects with extremely complex geometry. Lacks animation features. Interface is difficult to learn and navigate. Hardware-acceleration options are available. Includes three tutorial videotapes. Has hardware copy protection. Weak documentation. Version 2.1 reviewed. Requires 68020 CPU or higher with math coprocessor, System 6.05 or later, 32-bit QuickDraw, 8 MB of RAM, and a hard drive. $2,500. Byte by Byte Corp., 9442-A Capital of Texas Hwy. N., Ste. 650, Austin, TX 78759. 512-795-0150. (Sept '92)

Sculpt 4D ⭐⭐⭐½

Sculpt 4D offers excellent rendering quality and spline-based modeling tools. Provides absolute-vertex and polygonal-face control of objects. Can model objects with extremely complex geometry. Good animation features. Works best with a dedicated 3-D animation program such as ElectricImage. Interface is difficult to learn and navigate. Hardware-acceleration options are available. Includes three tutorial videotapes. Has hardware copy protection. Weak documentation. Version 2.1 reviewed. Requires 68020 CPU or higher with math coprocessor, System 6.05 or later, 32-bit QuickDraw, 8 MB of RAM, and a hard drive. $3,500. Byte by Byte Corp., 9442-A Capital of Texas Hwy. N., Ste. 650, Austin, TX 78759. 512-795-0150. (Sept '92)

Showplace ⭐⭐⭐

ShowPlace is an easy-to-use composition program that arranges, manipulates, and illuminates existing 3-D objects imported as RenderMan RIB files. Lacks modeling and animation tools. Includes good basic selection of surface-attribute and shape files. When used with MacRenderMan, provides slow but superb photo-realistic rendering. Excellent tutorial videotape. Works well with 3-D modeling programs, such as SwivelMan, that have limited rendering capabilities. Version 1.11 reviewed. Requires Mac II series or higher with 8 MB of RAM, a hard drive, and a color display system. Bundled with MacRenderMan, $695; CD-ROM version, $495. Pixar, Inc., 1001 W. Cutting Blvd., Richmond, CA 94804. 510-236-4000. (Sept '92)

StrataType 3d ⭐⭐⭐

This easy-to-use 3-D-type-design package creates shaded objects based on TrueType or Type 1 fonts. Generates bitmap renderings of adequate quality for most printed output. Can align text along a curve. Type can be rotated, scaled, and extruded. Lacks controls for kerning, letter-spacing, and manipulation of individual characters in a text block. Provides only single-source lighting. Lets you select typeface, style, and character size, and then apply customizable edge beveling, complex surface textures and scanned PICT images, and transparency. Version 1.0 reviewed. Requires 68020 CPU or higher with math coprocessor, 4 MB of available RAM, and a hard drive. $295. Strata, Inc., 2 W. St. George Blvd., Ancestor Sq., Ste. 2100, St. George, UT 84770. 800-678-7282 or 801-628-5218. (Dec '92)

StrataVision 3d ⭐⭐⭐⭐½

This modeling and visualization tool creates complex, photo-realistic 3-D images and animations. Rendering and screen-redraw times have been significantly reduced. Rendering can take hours, but it can be done in the background. Proprietary Raydiosity option offers extreme realism but may be prohibitively slow. Networked Macs using optional RenderPro application can dramatically reduce rendering times. Supports limited use of Bézier splines for editable, smoothly curved objects. Many texture and shape libraries are available. Use of plug-in Extensions adds many image-control features and creates an almost unlimited upgrade path. Supports PICS format and QuickTime. Version 2.5 reviewed. Requires 68020 CPU or higher with math coprocessor, 4 MB of available RAM, and a high-capacity hard drive. $995; RenderPro, $299 (group discounts available). Strata, Inc., 2 W. St. George Blvd., Ancestor Sq., Ste. 2100, St. George, UT 84770. 800-678-7282 or 801-628-5218. (Sept '92) ★ '91 Eddy

Super 3D ⭐⭐

Super 3D is a capable object-oriented drawing program with basic 3-D-modeling features. Easy to use, but lacks professional-level tools. Has three solid-rendering modes and can export a scene as an object-oriented 2-D snapshot in PICT or EPS formats. Vertex-level editing gives precise control over every facet of an object. Easy to make global changes. Limited support for shaded rendering or animation. Version 2.5 reviewed. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive; Requires Macintosh II series or higher for color work. $495. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Sept '92)

Swivel 3D Professional ⭐⭐⭐½

Swivel 3D Professional is a color-modeling program that speedily forms shaded solids. Casts shadows onto other objects and can project color graphics onto solids. Objects can be manipulated as jointed and sliding mechanisms without accidental dismantling. Can tween-animate objects or fly through scenes and save frames for playback. Easy-to-use interface. Missing some professional tools, such as true spline-based editing and adequate links to RenderMan RIB format. Version 2.04 reviewed. Requires Macintosh II series or higher with 5 MB of RAM, System 6.05 or later, a hard drive, and a color display system. $695. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Sept '92) ★ '89 Eddy

SwivelMan ⭐⭐⭐½

SwivelMan is a 3-D-modeling package that combines features of Swivel 3D Pro with enhanced support for the RenderMan RIB standard. Excellent control of hierarchical object links and motion axes. Phong rendering mode is fast. Built-in animation and rendering capabilities are adequate, but controls for texture-map attributes are weak. Works best with Pixar's MacRenderMan and with a more powerful 3-D animation package. Lacks true spline-based modeling tools. Can output files in RenderMan RIB, PICT, EPS, DXF, and PICS formats. Version 1.01 reviewed. Requires Macintosh II series or higher with 5 MB of RAM, System 6.05 or later, a hard drive, and a color display system. $895. Macromedia, Inc., 600 Townsend St.,

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

San Francisco, CA 94103. 415-442-0200. (Sept '92)

Upfront ⭐⭐½

This 3-D architectural-sketching tool is intended for conceptual design. Draws and manipulates 3-D objects in colored, shaded perspective view, not merely as wire-frame outlines. Complex interface is poorly designed, and common tasks such as zooming and printing require numerous steps. Lacks several essential tools and features. Can't import DXF files. Supports use of PICT and scanned-image files as backdrops while drawing. Good control of solar lighting, but lacks other light sources. Exports files in PICT, Illustrator, DXF, or EPS formats. Version 1.01 reviewed. Requires Macintosh II series and a hard drive. $895. Alias Research, Inc., 110 Richmond St. E., Toronto, Ontario M5C 1P1 Canada. 800-447-2542 or 416-362-9181. (Dec '91)

Virtus WalkThrough ⭐⭐⭐⭐½

Virtus WalkThrough is a powerful modeling and visualization package that makes virtual-reality concepts available to ordinary desktop Macs. Provides two views of an imaginary building or other object: 2-D Design, which lets you create and precisely customize a model, and 3-D Walk View, which offers a real-time, rendered color perspective through which you navigate in any direction. Lacks the import/export capabilities needed for serious CAD. Compact data files. Version 1.03 reviewed. Version 1.11 shipping. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive; Color requires Macintosh II series or higher and minimum 4 MB of RAM. $495. Virtus Corp., 117 Edinburgh S., Ste. 204, Cary, NC 27511. 919-467-9700. (July '91) ★ '90 Eddy

Graphics & Design/Page Layout

CopyFlow ⭐⭐⭐⭐

CopyFlow is a QuarkXPress XTension that allows batch importing or exporting of text and graphic elements. Adds its own menu to QuarkXPress. CopyFlow automates placement after you've completed your revisions. Works well and can be a real time-saver. Version 2.0 reviewed. Version 2.31 shipping. Requires QuarkXPress 3.1. $395. North Atlantic Publishing Systems, 9 Acton Rd., Ste. 13, Chelmsford, MA 01824. 508-250-8080. (Sept '90)

DataShaper ⭐⭐⭐⭐

DataShaper is a PageMaker text-import filter that converts tab- or comma-delimited data files into precisely formatted text as they are placed into a page layout. Requires careful planning and time-consuming programming of special code, but saves considerable time compared with preparing imported text manually. Works well for publishing large, frequently updated databases in custom layouts. Allows creation of multiple filters, each with its own name and providing different typography, spacing, punctuation, and inserted text. Automates arrangement of category heads, subheads, invisible placeholders, and graphics. Version 1.2 reviewed. Requires PageMaker 4.0 or later. $179.95. ElseWare Corp., 3201 Fremont Ave. N., Seattle, WA 98103. 206-632-3300. (Oct '91)

Fast Forms ⭐⭐⭐⭐½

Fast Forms is a modest, inexpensive forms-design program intended primarily for low-end users. Its manual is a joy to read. Imports and exports comma- and tab-delimited files. Can create fields to match scanned images of preexisting forms. The FastForms Filler feature lets you fill out forms without having to use the original program. Can't import EPS graphics. Version 2.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $179.95; upgrade, $49.95. Power Up Software Corp., 2929 Campus Dr., San Mateo, CA 94403. 800-851-2917 or 415-345-5900. (Sept '90)

FlexForm Business Templates ⭐⭐⭐⭐

FlexForm Business Templates are two volumes of prepackaged business forms. Includes SmartForm Assistant. Volume I contains stockkeeping, production, sales, billing, and collection forms. Volume II has purchasing, receiving, accounting, disbursing, and personnel business forms. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later and a hard drive. $89.95 per volume, direct. Formula, Inc., 1160 Industrial Ave., Ste. J, Petaluma, CA 94952. 707-763-9944. (Jan '90)

FrameMaker ⭐⭐⭐⭐½

FrameMaker is a powerhouse program for long-document and technical publishing. Provides sophisticated control over paragraph formats and cross-referencing. Its spelling checker works well and quickly. Table formatting is substantially improved over previous version. Imports standard Mac graphics as well as EPSI (UNIX), DOS, EPS, and Sun raster files. Supports multiple conditional-text variations of a source document, which adapts the base document according to special user-defined formatting tags. Supports Desktop Color Separation (DCS) graphics, although somewhat clumsily. Version 3.0 reviewed. Requires Macintosh II series or higher with 4 MB of RAM, System 6.03 or later, and a hard drive. $795. Frame Technology Corp., 1010 Rincon Cir., San Jose, CA 95131. 800-843-7263 or 408-433-3311. (Feb '92) ★ '91 Eddy

Informed Designer ⭐⭐⭐⭐½

Informed Designer is a complex and comprehensive forms-design program intended primarily for high-end corporate users. Capable of accuracy to 1/1,152 of a degree. Draws lines from .25-point to 999-points thick. Can import or export almost anything. Can take any object and rotate, replicate, duplicate, or resize it ad infinitum. Includes more than 150 mathematical, financial, and statistical functions. Related program, Informed Manager, is a complete flat-file database manager. Version 1.01 reviewed. Version 1.3 shipping. Requires Macintosh SE or later, System 6.05 or later, and a hard drive. $295; Informed Manager, $195; other linked software components available. Shana Corp., Advanced Technology Ctr., 9650 20th Ave., Ste. 105, Edmonton, Alberta T6N 1G1 Canada. 403-463-3330. (Sept '90)

Interleaf Publisher ⭐⭐⭐½

Interleaf Publisher is a speedy multiuser layout system for producing large, complicated documents. Improved user interface suffers from poor font management. Planned revision, Interleaf 5, will consist of six products tailored for specific job categories: Interleaf Professional Writer, Interleaf Engineer, Interleaf Illustrator, Interleaf Production, Interleaf Academic, and Interleaf Passport. Version 3.5 reviewed. Version 3.6.2 shipping. Requires Macintosh II series with 5 MB of RAM and a hard drive. $995. Interleaf, Inc., Prospect Place, 9 Hillside Ave., Waltham, MA 02154. 800-456-5323 or 617-290-0710. (Apr '89)

Layouts ⭐⭐⭐⭐½

Layouts is a five-disk set of PageMaker templates. The business-document templates are excellent. The superb manual has money-saving printing tips. Versions for QuarkXPress, DesignStudio, and Ready,Set,Go! are also available. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later and PageMaker. $129.95 for each version. Postcraft International, Inc., 27811 Ave. Hopkins, Ste. 6, Valencia, CA 91355. 805-257-1797. (May '90)

Multi-Ad Creator ⭐⭐⭐⭐½

Multi-Ad Creator is a powerful tool that lets you create high-quality single-page ads for PostScript output. It is easy to use and nearly foolproof (it lacks a good-taste feature). Every kind of graphic file and most word-processor files can be imported. If you create ads and don't need an all-purpose page-layout program, get Multi-Ad Creator. Version 2.1 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later with 4 MB of RAM and a hard drive. $895. Multi-

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Ad Services, Inc., 1720 W. Detweiller Dr., Peoria, IL 61615. 800-447-1950 or 309-692-1530. (June '90)

PageMaker ⭐⭐⭐⭐

PageMaker is a powerful and popular page-layout application. Easy to learn but packed with features. Versatile and well adapted to efficient long-document processing. Now includes Aldus PrePrint application for generating precise, high-resolution color separations. Has many built-in controls for word processing, complex typography, graphics, System 7 publish-and-subscribe links, indexing, and table editing. Has IAC hot links to graphics created with FreeHand and ColorStudio. Features interruptible screen redraw, a real time-saver. New Control Palette offers exact positioning and dimensioning of selected objects. Supports Aldus Additions, which extend feature set and allow custom scripting. Version 4.2 reviewed. Requires Macintosh Plus or later, 2 MB of RAM, and a hard drive. $795. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (July '92) ★ '85, '87, '88 Eddy

PDQ! (Page Designs Quick!) ⭐⭐⭐⭐½

PDQ! (Page Designs Quick!) and PDQ! 5 (Page Designs Quick! 5) are PageMaker templates designed exclusively for newsletter and newspaper publishing. The PDQ! set contains 60 three-column and 60 four-column layouts. PDQ! 5 contains 225 tabloid-sized, five-column layouts. The templates' quality is excellent, but they lack art. You can modify all layouts from within PageMaker. Version 1.0 reviewed. Requires PageMaker 4.0 or later. PDQ!, $89.95 direct; PDQ! 5, $159.95. PAR Publishing, 6355 Topanga Canyon Blvd., Ste. 307, Woodland Hills, CA 91367. 818-340-8165. (Aug '90)

Personal Press ⭐⭐⭐½

A budget page-layout program, Personal Press is easy to use yet powerful enough for basic DTP projects. Lots of good features, including basic word processing, style-sheet support, good TIFF-halftone controls, and spot-color cutouts. AutoCreate feature simplifies design and production of templates and prompts for possibly overlooked page elements. Automatic copy fitting adjusts character and paragraph spacing to match allotted page space. Needs ample memory and disk space. Screen refresh occasionally slow or buggy. Can have only one document open at a time. Can't do process-color separations. Version 2.0 reviewed. Requires Macintosh Plus or later, 2 MB of available RAM, System 6.05 or later, and a hard drive. $199. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Nov '92)

Publish It! Easy ⭐⭐⭐⭐

Publish It! Easy is a budget DTP application with many innovative features, including a slide-show option and built-in File-It! database module. Menus and dialog boxes are uncrowded and simple to use. Easy importing of text and graphics. Can't do process-color separations. Has small disk and memory requirements, vertical text justification, and five levels of Undo. Lacks real style sheets. Has user-editable dictionary and a thesaurus. Great for novices or folks with limited DTP requirements. Documentation is adequate but doesn't cover database features well. Network-ready version available. Version 3.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $199.95. Timeworks, Inc., 625 Academy Dr., Northbrook, IL 60062. 800-535-9497 or 708-559-1300. (Dec '92) ★ '90 Eddy

QuarkXPress ⭐⭐⭐⭐½

QuarkXPress is a high-end, professional page-layout program that now has a greatly simplified interface. You can also rotate any object or group in increments as fine as .001 degree. Several documents can be open simultaneously. Lets you have multiple retroactive master pages per document. Features excellent, precise typographic and color controls well suited to high-end prepress work. Now includes all custom formatting data within a document, instead of requiring a separate data file. Can color-separate CMYK TIFF and Scitex CT files, but not RGB, TIFF, or PICT files. Workspace surrounding the page can serve as pasteboard storage. Version 3.1 reviewed. Requires Mac Plus or later with 2 MB of RAM and a hard drive. $895. Quark, Inc., 1800 Grant St., Denver, CO 80203. 800-788-7835 or 303-894-8888. (July '92) ★ '89 Eddy

RagTime ⭐⭐⭐

RagTime combines word-processing, page-layout, graphics, and spreadsheet capabilities. It has a wide array of charts, hyphenation dictionaries in 14 languages, and an integral word processor that can check spelling in 8 languages. Linked spreadsheets within the same or other documents update automatically. Offers 80 functions, and you can add external functions for importing data from SQL databases. It also has page-layout functions such as the ability to flow text around frames and to adjust color and tint. Its number-crunching capabilities are minimal. Version 3.04 reviewed. Version 3.1 shipping. Requires Macintosh Plus or later with 2 MB RAM, System 6.02 or later, and a hard drive. $599. MacVONK, Inc., 940 Sixth Ave. S.W., Ste. 1100, Calgary, Alberta T2P 3T1 Canada. 403-232-6545. (June '90)

Ready,Set,Go! ⭐⭐⭐½

Ready,Set,Go! inherits the name of the venerable and popular page-layout application but is based on the high-end DesignStudio package. More than just a beefed-up version of DesignStudio, the revised application has improved layout-management features, and its handling of text, graphics, and color separations is good. Performance needs to be faster, and a totally new manual would be helpful. Version 1.0 (DesignStudio) reviewed. Version 5.14 shipping. Requires Macintosh Plus or higher, 2 MB of RAM, and a hard drive. $395. Manhattan Graphics Corp., 250 E. Hartsdale Ave., Ste. 23, Hartsdale, NY 10530. 800-572-6533 or 914-725-2048. (June '90)

Springboard Publisher II ⭐⭐

Springboard Publisher II is a low-end, very basic, template-based DTP package. Typing window allows simplified text entry. Text and graphics editing only in Actual Size view. Black-and-white painting tools only. Can't color text but includes SmartArt DA. No support for TIFF halftones. Clumsy text-frame linking. No spot color, master pages, or style sheets. Imports standard word-processing documents. Version 2.0 reviewed. Requires Mac Plus or later. $199.95. Spinnaker Software Corp., 201 Broadway, Cambridge, MA 02139. 800-826-0706 or 617-494-1200. (July '91)

Ventura Publisher Macintosh Edition ⭐⭐½

The Mac version of Ventura Publisher, the venerable PC page-layout program, still feels like a PC product, despite its considerable strength in technical- and long-document publishing. Even if you're willing to forgive its clumsy adaptation to the Mac interface, Ventura still has two major problems: First, it leaves all imported text and graphics files separate from the Ventura document, which lets the document remain compact but requires constant tracking of the other linked files; second, typeface management is unreliable if you need professional results. Version 3.0 reviewed. Version 3.01 shipping. Requires 3 MB of available RAM and a hard drive. $795. Ventura Software, 15175 Innovation Dr., San Diego, CA 92128. 800-822-8221 or 619-673-0172. (May '91)

GRAPHICS & DESIGN/PAINTING & IMAGE EDITING

Aldus Gallery Effects ⭐⭐⭐⭐½

Aldus Gallery Effects consists of a wide variety of graphics filters that can be used with Digital Darkroom, SuperPaint, and most other programs that

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

accept Photoshop plug-ins. Includes a stand-alone application that simply controls brightness, contrast, and limited color correction. Filters transform scanned images by simulating brush strokes, watercolors, charcoal, spatter paint, fresco, poster edges, rough-surface craquelure, reflective chrome, and high-contrast graphic pen. Version 1.0 Classic Art reviewed. Version 1.5 shipping. Requires 24-bit display system; image size is limited by available RAM (except in Photoshop or in Macs using virtual memory). $199. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Apr '92) ★ '91 Eddy

Amazing Paint ⭐⭐⭐⭐

A sense of fun pervades this black-and-white painting program, which also has a friendly price tag. Extensive special-effects feature list and many clever tools make the program useful for graphics pros and doodlers alike. Has glitzy text functions and flexible print options. Allows multiple levels of Undo. Supports ATM and TrueType. Poor documentation. Version 1.01 reviewed. Version 1.03 shipping. Requires Macintosh Plus or later and System 6.04 or later; hard drive recommended. $49.95. CE Software, Inc., 1801 Industrial Cir., P.O. Box 65580, West Des Moines, IA 50265. 800-523-7638 or 515-224-1995. (Oct '91)

Color It! ⭐⭐⭐½

This affordable 24-bit painting program offers surprising strength in image processing. Delivers basic color-image-enhancement features for users who don't need the high-end power of packages such as ColorStudio or Photoshop. Flexible, easy-to-use interface allows for customizable graphics tools and plug-ins from other programs. Excels at constructing complex selections, and can remember a TIFF file's selection area for use when that image is reopened. Supports PICT, TIFF/Mac or TIFF/PC, PostScript, Paint, Photoshop, and CompuServe GIF formats. Weak manual. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh II series or higher with 2 MB of RAM, System 6.05 or later, and 32-bit QuickDraw; 24-bit color display system recommended. $299.95. Timeworks, Inc., 625 Academy Dr., Northbrook, IL 60062. 800-535-9497 or 708-559-1300. (Apr '92)

Color MacCheese ⭐⭐⭐½

Color MacCheese is an inexpensive, full-color painting program that is designed for artistic fun, not as a professional tool. Two noncustomizable palettes are provided, resolution is limited to 72 dpi, and there are no rulers. Only one document can be opened at a time. But for casual painters who want to get to work immediately, Color MacCheese is perfect. Version 1.05 reviewed. Version 2.09 shipping. Requires 68020 CPU or higher with System 6.05 or later. $99. Delta Tao Software, Inc., 760 Harvard Ave., Sunnyvale, CA 94087. 800-827-9316 or 408-730-9336. (Mar '91)

ColorStudio ⭐⭐⭐⭐½

Although more complex and difficult to learn than Adobe's Photoshop, ColorStudio offers an unbeatable set of tools for professional-quality color manipulation and high-end output. For electronic prepress work where scanned photos, computer-generated graphics, or other artwork must look their best, ColorStudio lets you control color calibration, film separations, amazing special effects, and a wide range of image-editing tools. The Shapes Annex package (bundled with ColorStudio) adds an editable PostScript drawing layer. Version 1.11 reviewed. Version 1.5 shipping. Requires Macintosh II series or higher with System 6.05 or later, 32-bit QuickDraw, 4 MB of RAM, and a 24-bit color display system. $795. Fractal Design Corp., 335 Spreckels Dr., Ste. F, Aptos, CA 95003. 408-688-8800 or 408-688-5300. (May '91) ★ '90 Eddy

Comic People, Volume 2: Kid Stuff ⭐⭐⭐½

Comic People, Volume 2: Kid Stuff is a set of Comic Strip Factory add-ons, drawn by Trici Venola and Kurt Wahlner. Extraordinary quality and range. Kid Stuff presents five children and two grown-ups of both sexes and various ethnic backgrounds. Also included are backgrounds, sound effects, a very spry cat, and some Little Extras. Has companion product Comic People, Volume I, Office Days. Best used from within Comic Strip Factory. Requires Macintosh Plus or later. $39.95 each. Foundation Publishing, Inc., 14228 Shore Ln., Prior Lake, MN 55372. 612-445-8860. (Aug '90)

Comic Strip Factory, The ⭐⭐⭐⭐

The Comic Strip Factory is an assembly program for creating comic strips. Includes a database of parts for various characters as well as backgrounds for panels. Good text editing in balloons. Can import and export in MacPaint format. Version 1.0 reviewed. Version 1.6 shipping. Requires Macintosh Plus or later. $69.95. Foundation Publishing, Inc., 14228 Shore Ln., Prior Lake, MN 55372. 612-445-8860. (Dec '87)

Crystal Paint ⭐⭐⭐

Crystal Paint creates an electronic kaleidoscope. It's MacPaint's Brush Mirrors function gone wild in a small, simple — yet wonderful — application. Doesn't support color. Version 1.0 reviewed. Version 1.02 shipping. Requires Macintosh Plus or later. $49.95. Great Wave Software, 5353 Scotts Valley Dr., Ste. E, Scotts Valley, CA 95066. 408-438-1990. (Feb '88)

Digital Darkroom ⭐⭐⭐⭐

If you don't need the color capabilities of more-expensive photo-manipulation programs, then Digital Darkroom is for you. Strictly for black-and-white or high-resolution gray-scale images, although images can be colorized for use in other programs. This program does everything required for professional photo layouts. Uncluttered interface and a wide variety of painting and selection tools. Version 2.0 reviewed. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive, or SE/30 or Mac II series or higher; requires gray-scale or color display system. $395. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (June '91) ★ '88 Eddy

Easy Color Paint ⭐⭐⭐⭐

Easy Color Paint is a low-cost 8-bit (256-color) painting program. Supports color QuickDraw printers and Wacom pressure-sensitive digitizing tablets. Allows user-editable colors, patterns, and color blending. Offers gradient fills. Handy Preference files save customized interface configurations. Good performance. Poor manual. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $59.95. MECC, 6160 Summit Dr. North, Minneapolis, MN 55430. 800-685-6322 or 612-569-1500. (Nov '91)

Enhance ⭐⭐⭐⭐½

Enhance is an affordable, 8-bit, gray-scale image processor. Has many of the sophisticated graphics tools of a first-class photo-retouching program. Blends image processing with high-level graphic-arts tools. Includes painting, text, and shape-drawing tools. Can open TIFF, PICT, MacPaint, or EPS files. Has its own virtual-memory system for dealing with very large images. Tool palette is customizable. Provides filters, masks, and anti-aliasing. Filters can be created and saved to disk. Dialog-box and menu terminology is fuzzy, but manual is helpful and informative. Version 2.0 reviewed. Requires 68020 CPU or higher with 2 MB of RAM, System 6.03 or later, 32-bit QuickDraw, and a hard drive. $375. MicroFrontier, Inc., 3401 101st St., Ste. E, Des Moines, IA 50322. 800-388-8109 or 515-270-8109. (May '92)

ImageStudio ⭐⭐⭐⭐½

ImageStudio puts a complete black-and-white or gray-scale photo-retouching lab on the Mac desktop. Editable brushes let you modify digitized images in 256 gray levels. If you never work on color images, ImageStudio may be all you

need for professional photo manipulation. Version 1.0 reviewed. Version 1.7 shipping. Requires Mac Plus or later and a hard drive; gray-scale work requires 8-bit video card and a compatible monitor. $250. Fractal Design Corp., 335 Spreckels Dr., Ste. F, Aptos, CA 95003. 408-688-8800 or 408-688-5300. (June '88)

JAG ⭐⭐½

JAG (Jaggies Are Gone) is a fast, bare-bones utility that smooths the edges of objects in bit-mapped images and animations. Supports PICT and PICS formats, 8- or 24-bit color, and dithering. Can adjust color images to match NTSC-legal video spectrum. Can also smooth vector and PostScript images converted to PICT format, but quality isn't quite as good. Handles batch processing well and can operate in the background. Version 1.04 reviewed. Requires Macintosh II series or higher with a color display system. $99.95. Ray Dream, Inc., 1804 N. Shoreline Blvd., Mountain View, CA 94043. 415-960-0765. (Nov '92)

MacPaint ⭐⭐⭐

MacPaint, the original black-and-white pixel pusher, hasn't completely lost its shine after all these years. Now supports multiple windows, design templates, and a magic eraser for corrections. Lacks free-rotation and advanced image-distortion capabilities. A good starter package for kids, and a decent paint program if you only need basic doodling capability. Version 2.0 reviewed. Requires Mac Plus or later; hard drive recommended. $125. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (July '88) ★ '85, '87 Eddy

Painter ⭐⭐⭐⭐⭐

This powerful color-painting program imitates the behavior of natural media such as chalk, crayons, felt-tipped pens, airbrushes, and watercolors. Easy-to-use interface needs plenty of screen area. Comprehensive features allow extremely sophisticated control over brush marks, transparency, and simulated textures of canvas or paper surfaces. Provides adjustable color dispersion and blending, masking, and anti-aliasing. Supports Wacom pressure-sensitive digitizing stylus and tablet. Version 1.0 reviewed. Version 1.2 shipping. Requires 68020 CPU or higher, System 6.05 or later, a color display system, a hard drive, and 2.5 MB of RAM; digitizing tablet recommended. $349. Fractal Design Corp., 335 Spreckels Dr., Ste. F, Aptos, CA 95003. 408-688-8800 or 408-688-5300. (Feb '92) ★ '91 Eddy

Photon Paint ⭐⭐⭐½

Photon Paint doesn't rival its high-end competition, but it does offer a workable painting environment, multi-window capability, some interesting special effects, and a lower price. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh II with color card and System 6.03 or later. $79.95. MicroIllusions, Inc., 13464 Washington Blvd., Marina del Rey, CA 90291. 310-822-9200. (May '89)

Photoshop ⭐⭐⭐⭐⭐

Photoshop is a professional, 32-bit photo-retouching program that combines powerful image-editing capabilities with an unintimidating interface. Fast, reliable, and easy to use. Flexible file-conversion options — can import and export images to and from popular graphics file formats for Mac and DOS machines. Comes with many useful special-effects filters for customizing images. Allows on-screen CMYK editing, precise control of color separations, UCR (undercolor removal), and GCR (gray-component replacement). Can open and rasterize EPS files for incorporation into continuous-tone images. Supports PostScript Level 2. Version 2.0 reviewed. Version 2.0.1 shipping. Requires Macintosh II series or higher with 4 MB of RAM, a hard drive (minimum of 150 MB recommended), and a color monitor. $895. Adobe Systems, 1585 Charleston Rd., P.O. Box 7900, Mountain View, CA 94039. 800-833-6687 or 415-961-4400. (Sept '91) ★ '90, '91 Eddy

PixelPaint ⭐⭐⭐½

PixelPaint is a straightforward 256-color (8-bit) painting program with a good interface, practical tools, and special effects. Works with many file formats. Four-color-separation capability is built in. Includes PixelScan utility with excellent 8-bit imaging for Sharp and Howtek color scanners. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh II series with color video card and 2 MB of RAM, System 6.03 or later, color monitor, and hard drive. $249. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (Oct '89)

PixelPaint Professional ⭐⭐⭐⭐

PixelPaint Professional's significantly improved interface allows multiple open documents and floating palettes. Offers extensive support for CMYK color separations and provides an independent PostScript text layer. Includes several color-blending and -manipulating tools as well as anti-aliasing capabilities. A serious, powerful tool for electronic artists. Excellent documentation. Version 2.0 reviewed. Version 2.01 shipping. Requires Macintosh with 4 MB of RAM, System 6.05 or later, and a hard drive; 24-bit-color display system recommended. $799. SuperMac Technology, 485 Potrero Ave., Sunnyvale, CA 94086. 800-334-3005 or 408-245-2202. (Oct '91)

Smoothie ⭐⭐⭐⭐

This application smooths the edges of objects in vector and PostScript images converted to PICT format. Excellent image quality. Doesn't work with bit-mapped images. Supports 8- or 24-bit color, QuickTime movie format, and file compression. Handles batch processing well. Version 1.04 reviewed. Requires Macintosh II series or higher, System 7 or later, and a color display system. $149. Michael Peirce Software, 719 Hibiscus Place, Ste. 301, San Jose, CA 95117. 408-244-6554. (Nov '92)

Studio/1 ⭐⭐⭐⭐½

Studio/1 is an excellent black-and-white painting program that also has impressive flip-frame animation capabilities. It has an uncluttered animation surface, painting tools with 300-dpi capabilities, and a HyperCard playback utility (XCMD). Version 1.0 reviewed. Requires Macintosh Plus or later; hard drive recommended. $79. Electronic Arts, 1450 Fashion Island Blvd., San Mateo, CA 94404. 800-245-4525 or 415-571-7171. (Sept '89)

Studio/8 ⭐⭐⭐⭐⭐

Studio/8 is a professional 8-bit (256-color) painting application. Has a superior tool set, an elegant interface, and excellent performance and speed. Version 1.1 reviewed. Version 2.0 shipping. Requires Macintosh II series or LC and higher with 2 MB of RAM, a color display system, and a hard drive. $295. Electronic Arts, 1450 Fashion Island Blvd., San Mateo, CA 94404. 800-245-4525 or 415-571-7171. (Jan '89) ★ '88 Eddy

Studio/32 ⭐⭐⭐⭐½

This excellent color-painting program provides many special tools and effects, including airbrush, gradients and blends, smudge, and anti-aliasing. A PostScript text layer keeps letters fully editable and as sharp as the available printer will allow. Its unusual effects include spherization; perspective; free rotation; resizing/stretching; transparency; and the "magic wand," which selects only certain pixels within an adjustable color range. Despite its power, Studio/32 is exceptionally easy to use. Version 1.0 reviewed. Version 1.2 shipping. Requires 24-bit-color display system, 5 MB of RAM, and a hard drive. $695. Electronic Arts, 1450 Fashion Island Blvd., San Mateo, CA 94404. 800-245-4525 or 415-571-7171. (Mar '91) ★ '90 Eddy

SuperPaint ⭐⭐⭐

SuperPaint is a combination painting/drawing program that includes plug-in tools, autotrace, Bézier curves, support for resolutions exceeding 300 dpi, and 24-bit color support. Sophisticated color controls,

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

texture fills, gradients, and import capabilities. Lacks true pen tool in drawing mode. Can't convert text to outlines and doesn't support object blending. Can save custom palettes for future use and lets you define colors using RGB, HSB, or CMYK models. Good collection of special-effects tools. Supports Paint, EPS, TIFF, PICT, startup-screen, and SuperPaint 1.0 formats. Version 3.0 reviewed. Requires Macintosh Plus or later with 2 MB of RAM, System 6.05 or later, and a hard drive; 24-bit color display system and minimum 4 MB of RAM recommended. $199; upgrade, $65. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Nov '92) ★ '87 Eddy

UltraPaint ⭐⭐⭐

UltraPaint is an 8-bit-color graphics program that's best for novices, but experienced artists may also find it useful. Somewhat quirky interface. Full complement of basic painting and drawing tools plus several specialized tools and modes. Can't convert text to outlines. Well-designed pen tool is easy to use. Supports multiple painting and drawing layers. Version 1.05 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later with System 6.05 or later. $79. Deneba Software, 7400 S.W. 87th Ave., Miami, FL 33173. 305-596-5644. (Nov '92)

VideoPaint ⭐⭐½

VideoPaint isn't fast or easy to learn, and it comes with a manual that's difficult to comprehend. This program offers a few special effects that other 8-bit-color paint programs can't match, however. VideoPaint includes drivers for Microtek and Sharp scanners, and it can import MacPaint, PICT/PICT2, PixelPaint, color TIFF, LZW, and Studio/8 files. The list of available export formats includes EPS, grayscale, and PostScript CMYK. Version 1.0 reviewed. Version 1.1a shipping. Requires Macintosh II series with 2 MB of RAM and a color display system; LC version available. $495. Olduvai Corp., 7520 Red Rd., Ste. A, South Miami, FL 33143. 800-822-0772 or 305-665-4665. (Feb '91)

Graphics & Design/ Presentations

Authorware Professional ⭐⭐⭐⭐⭐

A supremely engineered tool that lets you build stand-alone interactive training applications without programming, Authorware Professional lets you blend sound, video, and animation. By stringing together icons that represent various program components, you create logical, editable sequences. Has good color-graphics and sound controls, limited but useful database functions, and basic calculation and graphing features. Can use many existing XCMDs and XFCNs written for HyperCard and Macromind Director. Generates detailed printed reports. Supports many videodisc controllers. Version 1.6 reviewed. Version 1.7 shipping. Requires Macintosh Plus or later; Mac II with 4 MB of RAM recommended for color work. $8,000; for educational users, $995. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Aug '91) ★ '90 Eddy

CA-Cricket Presents ⭐⭐⭐

CA-Cricket Presents is a presentation tool with a strong graphics emphasis. Includes good master template. Lacks text-import capability. Version 1.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later, System 6.03 or later, 2 MB of RAM, and a hard drive. $199. Computer Associates International, Inc., One Computer Associates Plaza, Islandia, NY 11788. 800-531-5236 or 516-342-5224. (Dec '88)

Cinemation ⭐⭐⭐⭐

Cinemation is an easy-to-use, frame-based animation tool. Perfect if you need to build on-screen presentations for use in business and education. Not as powerful and feature-rich as programs such as Macromind Director. Imports and plays existing Aldus Persuasion and Microsoft PowerPoint files. Includes a variety of design templates, including backgrounds and borders. AutoMotion feature combines templates with your customized animations. Has good painting tools and useful controls for sound and music. Imports PICT, PICS, and QuickTime files. Includes CinePlayer playback utility plus many sample animations and XCMDs for use in HyperCard. Version 1.0 reviewed. Requires Macintosh Plus or later and a hard drive; Mac II series recommended (with 4 MB of RAM and a color display system). $495. Vividus Corp., 651 Kendall Ave., Palo Alto, CA 94306. 415-494-2111. (July '92)

Macromind Director ⭐⭐⭐⭐½

Macromind Director is unequaled for its combination of interactivity with animated playback of color graphics and sound. By writing routines in Director's scripting language, you can develop interactive animations and also control peripheral devices such as CD-ROM drives, VCRs, and videodisc players. One problem is that its excellent paint-layer tools create bit-mapped images only (except for text), so a separate drawing layer would help. Anyone familiar with HyperTalk scripting or similar programming should have no problem with Director. Version 2.0 reviewed. Version 3.1 shipping. Requires Macintosh Plus or later with 2 MB of RAM, System 6.05 or later, and a hard drive. $1,195. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Mar '91) ★ '89 Eddy

Magic ⭐⭐⭐⭐

Magic is a precise animated-presentation tool that produces near-professional-looking results without requiring professional-level skills. Uses MacDraw-like tools to draw paths for animated objects. Integrates graphics, text, sound, and QuickTime movies. Creation of interactive presentations does not require scripting. Lacks high-end features found in the MacroMind Director package. Version 1.1 reviewed. Requires Macintosh Plus or later with 4 MB of RAM, System 6.07 or later, a hard drive, and color display system. $395. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Aug '92)

MediaMaker ⭐⭐⭐½

MediaMaker lets you compile multimedia presentations by controlling and editing output from VCRs, videodisc players, camcorders, and CD-ROM drives. Clean, powerful interface. Also provides simultaneous control of Mac-based animations, graphics, and sound. Can assemble presentation elements and sound on to videotape. With additional Mac hardware, you can overlay titles or other special effects on to live or prerecorded video sequences. Compatible with Sony's LANC communication protocol for controlling video peripherals. Adequate for consumer-level presentations that don't need professional frame-accurate synchronization. Version 1.1 reviewed. Version 1.2 shipping. Requires color-capable Mac, 2 MB of RAM, System 6.05 or later, and a hard drive. $695. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Dec '91)

MORE ⭐⭐⭐½

MORE's outlines can be instantly transformed into presentations. Dozens of templates are provided, and users can also design their own. The program gives you a wide choice of customizable labeling schemes. Slide-making tools are excellent. Version 3.0 reviewed. Version 3.1 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $395. Symantec Corp., 10201 Torre Ave., Cupertino, CA 95014. 800-441-7234 or 408-253-9600. (Oct '90) ★ '86, '90 Eddy

Persuasion ⭐⭐⭐⭐½

Persuasion is a powerful, comprehensive desktop presentation program. Template-design and outlining capabilities are excellent. Many predesigned templates are included. Lacks a cropping tool, text

kerning, and ability to rotate text or graphics. On-screen slide shows are handled well. Can import and display QuickTime movies and EPS or PICT graphics. Publish-and-subscribe capability automatically updates Persuasion images in other applications. With some limitations, you can transfer presentations between the Macintosh and Windows versions of Persuasion. Includes display-only Persuasion Player application for distribution with finished presentations. Version 2.1 reviewed. Requires Macintosh Plus or later with 2 MB of RAM, System 6.05 or later, and a hard drive. $495. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Aug '92) ★ '88 Eddy

PowerPoint ↕↕↕

PowerPoint is an easy-to-use desktop-presentation tool. Has good color schemes. Can send presentations to Genigraphics to produce color 35mm slides. Version 2.0 reviewed. Version 2.01F shipping. Requires Macintosh Plus or later and System 6.03 or later; hard drive recommended. $395. Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Aug '87) ★ '87 Eddy

INPUT DEVICES

Appoint Thumbelina Mac ↕↕↕

Thumbelina Mac is a tiny trackball that works well but is best used by the nimble-fingered. Requires some dexterity and practice. Occupies no more desk space than one Oreo cookie. You may need several swipes of the marble-sized ball to move the cursor across any screen larger than a Classic's (or try the shareware mouse-accelerator software, Mouse2). Unlike larger desktop trackballs, Thumbelina Mac can be operated while supported entirely in your hand. Requires Macintosh SE or later. $99. Appoint, 7026 Koll Ctr. Pkwy., Ste. 230, Pleasanton, CA 94566. 800-448-1184 or 510-417-0611. (May '92)

Asher Engineering quadLYNX Trackball ↕↕↕½

The quadLYNX Trackball has an encased trackball. Its small size makes it easy to control; however, operation requires some wrist movement to access the buttons. Comes in both ADB and non-ADB versions. Requires Macintosh 512K or later. $99.95. Asher Engineering, 15115 Ramona Blvd., Baldwin Park, CA 91706. 800-321-5969 or 818-962-4063. (Oct '89)

Auto Mouse ↕↕↕

Why use a mouse when you could be double-clicking on a Corvette? This plastic mouse cover transforms a standard Apple mouse into a little red Corvette. Looks sharp but is a little clunky in use. Other models of this accessory may become available: cats, dogs, even mouse mouse covers. $19.95. Suntime, 7817 N. Cameron Ave., Tampa, FL 33614. 813-886-1145. (Dec '92)

CalComp DrawingBoard 2300A ↕↕↕↕½

The CalComp 2300A is a full-featured drawing tablet that lets you resize and reposition the drawing area. Six different input devices (pens and pucks) and several software templates are available. AE Template Manager lets you perform all the System and HyperCard menu functions on the tablet. Requires Macintosh SE or II series. $495 to $2,995, depending on size. CalComp Digitizer Products Group, 14555 N. 82nd St., Scottsdale, AZ 85260. 800-458-5888 or 602-948-6540. (Oct '89)

CalComp DrawingBoard II ↕↕↕↕↕

Part of CalComp's 3300 series, this lightweight digitizing tablet has excellent control-panel software to customize response to user input. Software automatically reconfigures depending upon type of pen or puck in use. Provides on-screen display of input options. Tablet has comfortable design and connects to ADB port. Cordless pen and puck are battery-powered, easy to use, and accurate. Planned pressure-sensitive version of this tablet will use serial port. Requires Macintosh SE or later. With corded puck, $495; with cordless puck, $645. CalComp Digitizer Products Group, 14555 N. 82nd St., Scottsdale, AZ 85260. 800-458-5888 or 602-948-6540. (Apr '92)

Colorado Spectrum Mouse Yoke ↕↕↕

If your mouse feels melancholy about its nose-to-the-ground existence, strap the critter into a Mouse Yoke and fasten the assembly to your desktop. Then fire up any flight-simulation game, and your mouse will fly with you through the wild blue yonder. The aircraft-style yoke can't click the mouse button, and the documentation stalls completely in the DOSosphere, but in a Mouse Yoke, your mouse scrambles just as quickly as any joystick. $34.95. Colorado Spectrum, 748 Whalers Way, Ste. E201, Fort Collins, CO 80525. 800-238-5983 or 303-225-6929. (Dec '92)

CoStar Stingray ↕↕↕½

The Stingray trackball does indeed resemble a marine creature. Low profile and simple operation may be just right for ham-fisted right- or left-handed users. Switch underneath the base lets you set the two wide, symmetrical buttons either to click and click-lock or so that both simply click. Included software precisely controls cursor acceleration and double-click speed. Attached ADB cord is too short to reach around the Mac, so connection to keyboard port is required. Requires Macintosh SE or later. $129. CoStar Corp., 22 Bridge St., Greenwich, CT 06830. 800-426-7827 or 203-661-9700. (May '92)

Curtis MVP Mouse ↕↕↕½

Curtis MVP Mouse is actually a trackball, and it accepts an unusual option: a foot switch that can be used for clicking or to activate a chosen key combination. The trackball has three buttons configured to suit both left- and right-handed users. Included software lets you vary the operation of the buttons to handle standard Mac operations and custom Command-key combinations. Version 1.0 reviewed. Version 1.01 shipping. Requires Macintosh SE or later. $149.95; optional MVP Foot Switch, $29.95. Curtis Manufacturing Co., Inc., 30 Fitzgerald Dr., Jaffrey, NH 03452. 800-548-4900 or 603-532-4123. (May '92)

EMAC Silhouette ↕↕↕½

The Silhouette trackball is strikingly, ergonomically designed — if you're right-handed. Curved base is shaped to support your hand comfortably while you hold the ball between thumb and a finger. Comes with four differently-colored balls, each with different weights and therefore varying spin inertia after user input. Base is vulnerable to dirt and dust, because circuit board is relatively exposed under the ball opening. Location of three buttons may feel slightly awkward for some users. Included software assigns Command-key combinations to third button and varies speed of tracking and double-clicking. Requires Macintosh SE or later. $99.95. EMAC (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (May '92)

Felix ↕↕↕½

Felix is a 5.75-inch-square fixed-base mouse replacement. Space saver but awkward for lefties. Has a button on top of the pointer handle for mouse clicks. Has drawing setting for precise absolute movement. Useful software. Only ADB version is available. Version 1.0 reviewed. Version 1.22 shipping. Requires Macintosh SE or higher. $129. ALTRA, 520 W. Cedar, Rawlins, WY 82301. 800-726-6153 or 307-328-1342. (Oct '89)

FreeWheel Pointer ↕↕↕½

The FreeWheel Pointer uses a pointer to determine the user's head position by bouncing infrared light off a small, lightweight mirror on the user's forehead. Compact receiver unit and puff switch (can be mounted wherever convenient). Good software. Standard keyboard arrangement is located on-screen. Requires Mac Plus or later. $1,395;

MICE RATINGS ↕ ↕½ ↕↕ ↕↕½ ↕↕↕ ↕↕↕½ ↕↕↕↕ ↕↕↕↕½ ↕↕↕↕↕

ADB adapter for Mac SE, SE/30, and IIGS series, $150. Pointer Systems, Inc., One Mill St., Burlington, VT 05401. 800-537-1562 or 802-658-3260. (Oct '89)

HeadMaster ★★★½

The HeadMaster is designed for users who have little or no use of their hands. It uses ultrasound signals emitted from a headset to determine the position of the user's head. Has a puff tube for the mouse button. Emulates all mouse functions. Offers a variety of on-screen keyboards. Available for Mac 512K, Plus, SE, and II. Requires on-screen keyboard software such as Apple's Screen Keys; Mac SE or later requires ADB adapter. $945; ADB adapter, $150; Screen Keys, $100. Prentke Romich Co., 1022 Heyl Rd., Wooster, OH 44691. 800-262-1984 or 216-262-1984. (Oct '89)

Kensington Microware Turbo Mouse ADB ★★★★★

The Turbo Mouse ADB trackball lets you reverse mousing and locking functions for left-handed people. Has a chording feature for user-specified keyboard-command-equivalent functions. Excellent design and software. Version 2.0 reviewed. Version 4.0 shipping. Requires Macintosh SE or later. $169.95. Kensington Microware Ltd., 2855 Campus Dr., San Mateo, CA 94403. 800-535-4242 or 415-572-2700. (Oct '89)

Kidz Mouse ★★★★

It's cute, it's colorful, and it works just like your Mac's regular rodent. The Kidz Mouse is a compact, sturdy input device that fits nicely under busy little digits but might seem awkward to adult mousers with large hands. Two buttons resembling flattened mouse ears let you click or double-click. Requires Mac SE or later. $79. Logitech, Inc., 6505 Kaiser Dr., Fremont, CA 94555. 800-231-7717 or 510-795-8500. (Dec '92)

Kurta IS ★★★½

Kurta IS is a digitizing tablet that's available either in the IS/ADB configuration (for connection to an ADB port) or in the IS/ONE configuration (which uses the Mac's serial port). Both configurations work consistently with corded or cordless pens and pucks, but accuracy may suffer if input pen is tilted. Cordless pen is heavy. Tablet has 13 color-coded buttons that can trigger custom macros. Also built in are several dedicated buttons that exercise frequent software options. Complex documentation. Upgraded XGT digitizer series will add pressure-sensitive operation. Requires Macintosh SE or later for IS/ADB; Requires Macintosh Plus or later for IS/ONE. IS/ADB, $495 to $965; IS/ONE, $525 to $945. Kurta Corp., 3007 E. Chambers St., Phoenix, AZ 85040. 800-445-8782 or 602-276-5533. (Apr '92)

Logitech MouseMan ★★★★★

The MouseMan is a three-button, programmable ADB mouse with a comfortable rounded design. Included MouseKey software controls speed, tracking, and sensitivity. Extra buttons can be programmed to activate different commands depending upon the Mac's active application. MouseMan is A/UX-compatible, although MouseKey software is not. Requires Macintosh SE or later. $129. Logitech, Inc., 6505 Kaiser Dr., Fremont, CA 94555. 800-231-7717 or 510-795-8500. (Mar '92)

Logitech TrackMan ★★★★½

TrackMan is an elegant, practical ADB trackball with versatile software. Ergonomic design has golf-ball-sized ball and three buttons in a rectangular base. Unusual setup uses thumb to move ball and fingers to activate buttons. Included software controls tracking speed and button settings for double-click speed, click-lock or Fkey activation, as well as Command-key combinations. Provides unique ability to change all assigned button settings depending upon the active application. Requires Macintosh SE or later. $149. Logitech, Inc., 6505 Kaiser Dr., Fremont, CA 94555. 800-231-7717 or 510-795-8500. (May '92) ★ '91 Eddy

Mac 'N Touch ★★★★

Mac 'N Touch is a touch screen that's useful for applications that require a lot of pointing and clicking. Doesn't work as well for programs that require fine control, such as graphics packages. Available as an add-in screen for Mac SE and II models and as a snap-on screen for the SE only. Preassembled touch screens are available for many sizes of Mac-compatible monitors. SE add-in, $745; Mac II add-in, $895. MicroTouch Systems, Inc., 55 Jonspin Rd., Wilmington, MA 01887. 508-694-9900. (Oct '89)

Mac-101 ★★★★

The Mac-101 is an expanded keyboard. Has a keypad, 15 function keys, and more. The 101-Keys DA lets you define macros. Good feel and response. ADB versions available. $194.95. DataDesk International (Prometheus Products), 9524 S.W. Tualatin Sherwood Rd., Tualatin, OR 97062. 800-477-3473 or 503-692-9600. (Apr '88)

MacPro Plus Keyboard ★★★★½

The MacPro Plus Keyboard is an easily customizable alternative to Apple's Extended Keyboard. Both the "touch" (resistance to pressure) and assigned characters of individual keys can be changed to suit different typing styles and special projects. Works with all Macs and allows use of paper templates designed for Apple's keyboard. ADB connections on back of the keyboard prevent it from sitting flush against the Mac. Includes Tempo II macro utility. $179. Key Tronic Corp., P.O. Box 14687, Spokane, WA 99214. 800-262-6006 or 509-928-8000. (Sept '91)

McIntyre ★★★½

McIntyre combines two products: WordWriter software and a LipStick joystick for people who can't use their hands. The joystick is held in the mouth, and clicking requires pressing a button on the top of the stick with the tongue. Joystick can also be mounted on a gooseneck stand. An image of the keyboard appears on-screen so users can select letters and carry out most keyboard functions. Extremely sensitive. WordWriter software, $100; LipStick joystick, $250. McIntyre Computer Systems, 22809 Shagbark, Birmingham, MI 48010. 313-645-5090. (Oct '89)

MicroSpeed MacTRAC ★★★★

The MacTRAC has three buttons — a lock and two clicks — located above the trackball. Light indicator signals that the lock button has been pushed. Powerful software offers wide range of custom options, including equal ease of use for right- or left-handed people. Key Events feature adapts buttons to standard Mac operations such as Cut and Paste. Adding a macro program such as QuicKeys or Tempo II provides almost endless button/command combinations. Version 2.0 reviewed. ADB version. Requires Mac SE or later. $99; ADB version, $119. MicroSpeed, Inc., 44000 Old Warm Springs Blvd., Fremont, CA 94538. 800-232-7888 or 510-490-1403. (May '92)

Mouse Systems A3 Mouse ★★★★½

A3 Mouse is an accurate, three-button, A/UX-compatible input device. Has 300-dpi tracking resolution (versus the Apple rodent's 200 dpi). Uses optical sensor and special pad to provide smooth, responsive action. Control panel software programs extra buttons to activate user-defined commands. $149.95. Mouse Systems, 47505 Seabridge Dr., Fremont, CA 94538. 510-656-1117. (Mar '92)

Mouse Systems Little Mouse ★★★★½

The one-button Little Mouse uses infrared light reflected from a special pad to track mouse movement. Compact, with no moving parts. Relative movement and clicking action feel similar to the standard Mac mouse. Improved precision for small on-screen objects. Must use included mouse pad. Tracking resolution is 300 dpi. $134.95. Mouse Systems, 47505 Seabridge Dr., Fremont, CA 94538. 510-656-1117. (Mar '92)

MouseStick ★★★★½

The MouseStick is a joystick

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★

with programmable settings. Buttons can perform mouse-type functions or execute keyboard commands with single, double-, or triple-clicking. Available in ADB and non-ADB versions. ADB version has built-in splitter cable and can retain six settings for most popular games. Requires System 6.05 or later. $99.95. Advanced Gravis Computer Technology Ltd., 7400 MacPherson, Ste. 111, Burnaby, British Columbia V5J 5B6 Canada. 604-431-5020. (Oct '89)

MouseTouch ‡‡‡‡

The MouseTouch is a touch screen that permits pulling down menus and entering numeric information via an on-screen keypad. Can be user-installed. Connects to ADB port. Requires Macintosh II series or higher. For 12- to 14-inch monitor, $895; for 19-inch monitor, $1,010. Information Strategies, Inc., 888 S. Greenville Ave., Ste. 121, Richardson, TX 75081. 214-234-0176. (Oct '89)

Numonics GraphicMaster ‡‡‡‡

GraphicMaster is a light, portable digitizing tablet that offers easy plug-and-play setup. Includes well-designed, accurate pen and puck. No-frills software sets active area of tablet. Tablet has no macro-activation options or buttons. No cordless pointing devices are available. Requires Mac SE or later. $595. Numonics Corp., 101 Commerce Dr., P.O. Box 1005, Montgomeryville, PA 18936. 800-247-4517 or 215-362-2766. (Apr '92)

Numonics GridMaster ‡‡‡½

The GridMaster is an extremely lightweight, thin, flexible digitizing tablet that can be positioned unobtrusively and then taped against a hard, flat work surface. Uses Mac's serial port. Has small rectangular box on upper-right corner to hold electrical connections. Operation with puck is smooth and accurate, but pen operation definitely needs secure support from desktop to maintain accuracy. Main disadvantage of lightweight design is vulnerability to damage from puncture or kinks. Requires Macintosh Plus or later. With pen, $449; with puck, $469. Numonics Corp., 101 Commerce Dr., P.O. Box 1005, Montgomeryville, PA 18936. 800-247-4517 or 215-362-2766. (Apr '92)

Personal Writer PW 10SL ‡‡‡‡½

The PW 10SL is a drawing tablet that offers friendly software setup and easy macro programming. Basic menu commands, a mousing area, software controls, a macro pad, and a small keyboard appear along one side. Provides click-and-drag scaling and movable drawing area. $799 to $2,499. Personal Writer, Inc., 1900 Avenue of the Stars, Ste. 2870, Los Angeles, CA 90067. 800-322-4744 or 310-556-1001. (Oct '89)

Sophisticated Circuits PowerKey ‡‡‡‡½

The PowerKey is a well-made add-on device that starts Classics, SEs, and SE/30s with a power key. Included software lets you program future timed events such as turning on the Mac or sending a specified keystroke combination. The actual power-key hardware has four surge-protected sockets. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh SE or later. $119. Sophisticated Circuits, 19017 120th Ave. N.E., Ste. 106, Bothell, WA 98011. 800-827-4669 or 206-485-7979. (Sept '90)

Sophisticated Circuits PowerPad ‡‡‡‡½

PowerBooks don't come with numeric keypads, function keys, or easy-to-use arrow keys. Adding a PowerPad elegantly corrects all three omissions. Version 1.0 reviewed. Requires PowerBook. $119. Sophisticated Circuits, 19017 120th Ave. N.E., Ste. 106, Bothell, WA 98011. 800-827-4669 or 206-485-7979. (Dec '92)

Spark Cordless Mouse ‡‡½

Although it offers the appeal of wireless, infrared-beam control of your Mac, the Spark Cordless Mouse suffers from shoddy construction. Has two components, the mouse itself (powered by two AAA batteries) and a receiving unit that works well even when it and the Mac are 20 feet away. The mouse's built-in LED transmitter can be turned up to 90 degrees away from the receiver. Mouse operation is unreliable due to a poorly secured rotating ball that tracks movement. No software is included. Version 1.0 reviewed. Requires Macintosh SE or later. $165. Spark International, 1939 Waukegan Rd., Ste. 107, Glenview, IL 60025. 708-998-6640. (Mar '92)

Summagraphics SummaSketch II ‡‡‡

SummaSketch II is a digitizing tablet that's well built and electronically reliable but is cumbersome to set up and use. External power supply, ADB adapter box, and corded pen and puck all add to wiring complexity. No cordless pen and puck are available. Tablet surface has unusually coarse texture and demands excessive tip pressure from input pen to maintain continuous stroke. Using the included software is time-consuming when setting tablet options. Good documentation. Requires Macintosh SE or later. $699. Summagraphics Corp., 60 Silver Mine Rd., Seymour, CT 06483. 800-729-7860 or 203-881-5400. (Apr '92)

Switchboard ‡‡‡‡‡

The Switchboard was the first customizable keyboard. It comes with three standard modules: a QWERTY alphanumeric keyboard, a cursor keypad, and a numeric keypad. Key movement feels comfortable, and action is smooth. Can be configured via DIP switches to run with Macs or PCs. Many customizable settings. $239.95. DataDesk International (Prometheus Products), 9524 S.W. Tualatin Sherwood Rd., Tualatin, OR 97062. 800-477-3473 or 503-692-9600. (Nov '90)

Voice Navigator II ‡‡‡‡½

This package includes sophisticated speech-recognition software and the elegant Navigator, a microphone and attached SCSI-interface box that digitizes sound into patterns that the Mac can recognize. Provides surprisingly accurate voice recognition after the software has adapted to an individual's voice. Replicates many frequent keyboard commands and learns new ones easily. Some problems exist with the interface, overall software integration, and macro editing, but not enough to handicap this revolutionary product. Version 2.0 reviewed. Requires Macintosh Plus or later. $699. Articulate Systems, 600 W. Cummings Park, Ste. 4500, Woburn, MA 01801. 800-443-7077 or 617-935-5656. (Sept '91) ★ '89, '90 Eddy

Wacom SD-510C Cordless Digitizer ‡‡‡‡‡

The SD-510C Cordless Digitizer is light and thin. Uses a pressure-sensitive stylus requiring neither a cord nor a battery. Tablet connects to the modem port. Sensing area is 6 x 9 inches (roughly 10 x 13 inches overall). Resolution is 770 lines per inch with high accuracy. Much more responsive than a mouse. When not in use, makes an excellent mouse pad. Includes Pressure Paint program and choice of stylus or cursor. Requires Macintosh Plus or later. $695. Wacom Technology Corp., 501 S.E. Columbia Shores Blvd., Ste. 300, Vancouver, WA 98661. 800-922-6613 or 206-750-8882. (June '90)

Wacom SD420E ‡‡‡‡‡

The Wacom SD420E is a digitizing tablet that's simply constructed and maintenance-free. Pressure-sensitive in combination with included cordless pen but not with included cordless puck. Excellent software controls puck options and pen's pressure sensitivity. Mouse click is always a feather-touch effort, independent of click-and-drag sensitivity. Pen and puck don't require batteries. Maximum traceable thickness of artwork is slightly less than with other tablets. Includes basic stand-alone application called PressurePaint, along with plug-ins for SuperPaint and UltraPaint. Several programs, including FreeHand, ColorStudio, Oasis, Painter, Photoshop, and Studio/32, include

MICE RATINGS ‡ ‡½ ‡‡ ‡‡½ ‡‡‡ ‡‡‡½ ‡‡‡‡ ‡‡‡‡½ ‡‡‡‡‡

pressure-sensitive tools for this tablet. Requires Macintosh Plus or later. $995. Wacom Technology Corp., 501 S.E. Columbia Shores Blvd., Ste. 300, Vancouver, WA 98661. 800-922-6613 or 206-750-8882. (Apr '92)

Z-Nix Cordless Super Mouse ★★★½

This cordless input device uses infrared communication between a fixed receiver base and the mouse. Automatically recharges batteries when the mouse is stored in the base, but Mac must be on for recharging to take place. Base has 6-foot cord to connect to ADB port. Convenient, reliable, and elegantly designed. Good ergonomics, but only if you're right-handed. Has a standard button plus a second button for assigned key sequences. Included Mous-Enhancer software provides basic tracking, double-clicking, and key-sequence controls. With clear line-of-sight visibility between mouse and its base, the two work well even when more than 10 feet apart. Requires Macintosh SE or later. $99. Z-Nix Company, Inc., 211 Erie St., Pomona, CA 91768. 714-629-8050. (Nov '92)

Music & Sound

Alchemy ★★★★½

Alchemy loads and edits digitally sampled sounds from any commercial sound-sampler. Good interface and feature set. Reliable performance. Excellent manual. Version 1.1 reviewed. Version 2.5 shipping. Requires Macintosh Plus or later with 2 MB of RAM, MIDI or RS-422 interface, a hard drive, and a sampler. $695. Passport Designs, Inc., 100 Stone Pine Rd., Half Moon Bay, CA 94019. 415-726-0280. (Oct '88) ★ '88 Eddy

Apple MIDI Interface ★★★

The Apple MIDI Interface is a simple musical-instrument digital interface with a 1-MHz clock rate. Has only one MIDI input and one output. Requires Macintosh Plus or later. $99. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (June '88)

AudioTRAX ★★★

AudioTRAX is a modestly priced software package that mixes MIDI music sequences with two channels of 8-bit, 22-kHz sampled sound effects. Adequate for noncommercial sound mixing. Too limited for MIDI pros. Provides controls for the MacRecorder and for audio input on newer sound-capable Macs. Has easy-to-use basic tools for editing sound samples. Excellent documentation. Version 1.01 reviewed. $299. Passport Designs, Inc., 100 Stone Pine Rd., Half Moon Bay, CA 94019. 415-726-0280. (Sept '92)

Beethoven's String Quartet ★★★★★

Warner New Media's second Audio Notes CD-ROM provides an ideal introduction to Beethoven's String Quartet No. 14, Op. 131. Compared to the earlier disc (Mozart's The Magic Flute), the String Quartet is much easier to install and to navigate. The graphic design is well suited to HyperCard's intuitive style. Requires Macintosh Plus or later, HyperCard 1.2.5 or later, a hard drive, CD-ROM drive, and speakers or headphones. $66. Warner New Media, 3500 W. Olive Ave., Ste. 1050, Burbank, CA 91505. 818-955-9999. (Mar '91)

Beyond ★★★★

Beyond is a competent music sequencer for midlevel users. Does a good job of implementing the Mac interface, and both the manual and the tutorial are excellent. Incorporates a unique feature that, at least on Macs based on a 68000 CPU, accelerates the program by adjusting its performance relative to the computer's internal clock. Version 1.5 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later, MIDI interface, and MIDI synthesizer. $149 direct. Dr. T's Music Software, Inc., 124 Crescent Rd., Needham, MA 02194. 617-455-1454. (Feb '91)

Composer's Mosaic ★★★★½

This music-notation and -publishing program is perfect for both novice songwriters and professional music copyists. Offers high degree of automation along with state-of-the-art tools for manipulating subtle details. Provides seamless integration with MIDI sequencing programs. Click-and-drag WYSIWYG interface makes it easy to enter musical elements from movable palettes directly onto staves. Unlimited Undo capabilities. Supports multiple files, various Mac/monitor combinations, and System 7. Bundled with Adobe Sonata font. Shipping version compatible with files created with earlier Professional Composer program. Version 1.05 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $595. Mark of the Unicorn, Inc., 1280 Massachusetts Ave., Cambridge, MA 02139. 617-576-2760. (Oct '92)

ConcertWare+ ★★

ConcertWare+ has eight different instruments and can use any four at any point in a musical composition. Supports Adobe Sonata music font. Version 4.0 reviewed. Version 4.06 shipping. Requires Macintosh Plus or later. $69.95. Great Wave Software, 5353 Scotts Valley Dr., Ste. E, Scotts Valley, CA 95066. 408-438-1990. (Dec '87) ★ '85 Eddy

ConcertWare+ MIDI ★★★★

ConcertWare+ MIDI is a composition and transcription program that can record multiple notes from a MIDI keyboard. Easy to use if you can read music. Handles eight tracks of eight voices each. Version 4.0 reviewed. Version 5.22 shipping. Requires Macintosh Plus or later. $189.95. Great Wave Software, 5353 Scotts Valley Dr., Ste. E, Scotts Valley, CA 95066. 408-438-1990. (Dec '87)

Cubase ★★★★

Cubase is a Mac MIDI sequencer that started life in Germany on the Atari ST. Good interface lets you edit while a sequence is playing. Provides four windows for editing of different instruments at the MIDI-event level. Has both intuitive toolbox-style control over sounds as well as a Logical Editor that fine-tunes compositions according to various Boolean selection and editing criteria. Has excellent Match and Groove quantizing tools, which are real time-savers. Holds its own against more-established music-editing programs. Timing resolution is only 192 ticks per quarter note. Includes driver for Digidesign's SampleCell NuBus card. Compatible with Apple's MIDI Manager. Copy-protected. Version 1.8 reviewed. Version 1.83/R2 shipping. Requires Macintosh II series or higher, 4 MB of RAM, and a hard drive. $495. Steinberg/Jones, 17700 Raymer St., Ste. 1001, Northridge, CA 91325. 818-993-4091. (Feb '92)

Cue: The Film Music System ★★★★½

Cue: The Film Music System is a powerful and versatile assistant for scoring films. Automates spotting and logging cue points and searching for matching tempos. Also performs many minor jobs, such as generating a performing-rights cue sheet. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and a hard drive. $595. Opcode Systems, Inc., 3950 Fabian Way, Ste. 100, Palo Alto, CA 94303. 415-856-3333. (Feb '89)

Deck ★★★★

Deck is a completely software-generated recording system, with an interface resembling the famous Tascam Porta-Studio four-track cassette recorder. MIDI and acoustic input can be mixed and synchronized, producing CD-quality stereo that's easy to access and manipulate. Version 1.0 reviewed. Version 1.03 shipping. Requires Digidesign's Audiomedia or Sound Tools card. $349. Digidesign, 1360 Willow Rd., Ste. 101, Menlo Park, CA 94025. 415-688-0600. (Feb '91) ★ '90 Eddy

Deluxe Music Construction Set ★★★★

Deluxe Music Construction Set lets you enter up to 48 voices on eight staves and play the music through the Mac's internal speaker and/or via

MIDI. Copy-protected. Version 2.0 reviewed. Version 2.5 shipping. Requires Macintosh Plus or later; hard drive recommended. $129.95. Electronic Arts, 1450 Fashion Island Blvd., San Mateo, CA 94404. 800-245-4525 or 415-571-7171. (June '88)

Digidesign Audiomedia ♮♮♮♮½

The Digidesign Audiomedia card and software turn the Mac into a self-contained digital recording studio. Can play back, edit, and mix sound files, and subject them to a variety of special effects. Has CD-quality sound that occupies huge amounts of hard-drive space (10 MB of disk space per minute of sound). Excellent manual includes a chapter devoted to scientific sound theory. Version 1.0 reviewed. Version 2.02 shipping. Requires Mac II series or higher, 2 MB of RAM, and a hard drive. $995. Digidesign, 1360 Willow Rd., Ste. 101, Menlo Park, CA 94025. 415-688-0600. (Oct '90) ★ '89 Eddy

Digidesign MacProteus ♮♮♮♮½

MacProteus is a NuBus card that fits any member of the Mac II series. The card operates as a MIDI-controlled playback device for desktop music production and can be controlled from most programs that use Apple's MIDI Manager and PatchBay software. A wide variety of customizable sounds are available, and the card is easy to install. Can play 16-bit linear, 39-kHz mono or stereo samples, but cannot create them. Version 1.0f2 reviewed. Requires Macintosh II series or higher. $895. Digidesign, 1360 Willow Rd., Ste. 101, Menlo Park, CA 94025. 415-688-0600. (Feb '91) ★ '90 Eddy

Digidesign Pro Tools ♮♮♮♮♮

Pro Tools combines professional digital-audio recording and MIDI technology in a single hardware/software package. Superb sound quality. Has four simultaneous channels for recording and playback. Includes a NuBus card, a rack-mountable Audio Interface module, and ProDeck and ProEdit software for mixing and editing. Equipped with four balanced XLR analog inputs and outputs plus two digital inputs and outputs (AES/EBU and S/PDIF). Allows you to directly input recorded sound from a DAT deck, then edit it in the Mac, and output it straight back to DAT format. Can capture audio at CD-quality 44.1 kHz or at 48 kHz. Version 1.0 reviewed. Requires 68020 CPU or higher, 8 MB of RAM, and a large-capacity hard drive. $5,995; 8-channel, 12-channel, and 16-channel versions also available. Digidesign, 1360 Willow Rd., Ste. 101, Menlo Park, CA 94025. 415-688-0600. (Sept '92)

Digidesign SampleCell ♮♮♮♮♮

SampleCell is a sample-playing Mac II NuBus card. Excellent software tools. More than 600 MB of prerecorded sounds on CD-ROM. Hardware comprises a SIMM-less NuBus card socketed for 8 MB of RAM. Card can store up to 100 seconds of 16-bit sound sampled at 44.1 kHz. Cuts cost of high-quality sound processing by using the Mac's CPU. Doesn't supply recording capability. Can use as many SampleCells as Mac will hold. Each card runs 16 MIDI channels. Supports MIDI keyboards, sequencers, and programs compatible with Apple MIDI Manager. Version 1.1 reviewed. Version 1.3 shipping. Requires Macintosh II series and a hard drive; CD-ROM drive required for included disc. $1,995 with no installed RAM. Digidesign, 1360 Willow Rd., Ste. 101, Menlo Park, CA 94025. 415-688-0600. (July '91)

Dr. T's Intro+ ♮♮♮♮

For beginning MIDI musicians on a budget, Dr. T's Intro+ may be just what the doctor ordered. Includes Dr. T's Beyond 1.6 sequencing software, Great Wave Software's Music Writer 5.2.1 notation program, two MIDI cables, and an Altech 1-in-3-out MIDI interface. Upgrading to Beyond 2.0 is highly recommended, making this starter kit a good deal. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive. $399; upgrade to Beyond 2.0, $40. Dr. T's Music Software, Inc., 124 Crescent Rd., Needham, MA 02194. 617-455-1454. (Dec '91)

Encore ♮♮♮♮½

Encore is a quasi-rule-based music-notation program with a nice interface. It supports multiple files and can deal with large scores. Good printing options. Version 1.16a reviewed. Version 2.5 shipping. Requires Macintosh Plus or later, a PostScript or QuickDraw printer, and a hard drive; MIDI interface optional. $595. Passport Designs, Inc., 100 Stone Pine Rd., Half Moon Bay, CA 94019. 415-726-0280. (May '90)

EZ Vision ♮♮♮♮½

Powerful enough for beginners, EZ Vision is a general-purpose sequencer that uses a standard tape-recorder analogy, offering many of the best features in OpCode's professional sequencer, Vision. Works with Apple's MIDI Manager but doesn't recognize SMPTE time code. EZ Vision makes good use of color and allows audible output while fast-forwarding or rewinding. Version 1.0 reviewed. Requires Macintosh Plus or later and a hard drive. $149.95. Opcode Systems, Inc., 3950 Fabian Way, Ste. 100, Palo Alto, CA 94303. 415-856-3333. (Feb '91)

Finale ♮♮♮♮

Finale 2.0 is a complex, revolutionary music-notation program. Packs power and a much-improved interface. Provides absolute control over all the music elements in large-scale compositional and/or publishing projects. New version fixes many flaws. Four new manuals are excellent, and performance is fast. Offers page and score views. Version 2.0 reviewed. Version 2.63 shipping. Requires Mac Plus or later, MIDI instrument and interface, a hard drive, and a printer; 68030 CPU and 4 MB of RAM recommended. $749. Coda Music Software, 1401 E. 79th St., Bloomington, MN 55425. 800-843-2066 or 612-854-1288. (May '90)

Galaxy ♮♮♮♮½

Galaxy is a universal patch-librarian program for MIDI synthesizers. When instruments are organized in a bundle, an entire Galaxy setup can be loaded with one command. Auditions and organizes individual patches from a bundle or by separate patch banks. Has many extra features, is easy to use, and allows connection to Vision (Opcode's professional sequencing program). Version 1.0 reviewed. Version 1.2 shipping. $249.95. Opcode Systems, Inc., 3950 Fabian Way, Ste. 100, Palo Alto, CA 94303. 415-856-3333. (Nov '90)

Harmony Grid ♮♮♮♮½

Harmony Grid offers an experiential approach to harmony theory. Uses a grid to show scales and chords as repeating patterns. Users play tones by moving the mouse over the grid, resulting in improvisation without requiring any training or technique. The program automatically provides counterpoint. Supports MIDI. Version 1.05 shipping. Requires Mac Plus or later (MIDI synthesizer recommended). $99. VPL Research, Inc., 656 Bair Island Rd., Third Floor, Redwood City, CA 94063. 415-361-1710. (Aug '90)

Jam Factory ♮♮♮

Jam Factory is a program for performing complex manipulations on MIDI data in real time. Unique, entertaining, and powerful. Requires lots of patience and practice. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, MIDI interface, and MIDI synthesizer. $119 direct. Dr. T's Music Software, Inc., 124 Crescent Rd., Needham, MA 02194. 617-455-1454. (Oct '87)

Kaboom! ♮♮♮½

The Kaboom! control panel is based on SoundMaster, the popular shareware sound utility that lets you attach dozens of weird sounds to common Mac actions (emptying the trash, shutting down, and so on). You get dozens of digitized sounds, including lines from "I Love Lucy" and "Twilight Zone" as well as the

MICE RATINGS ♮ ♮½ ♮♮ ♮♮½ ♮♮♮ ♮♮♮½ ♮♮♮♮ ♮♮♮♮½ ♮♮♮♮♮

voices of Richard Nixon, Ronald Reagan, and other celebrities. $49.95. Nova Development, 23801 Calabasas Rd., Ste. 2005, Calabasas, CA 91302. 818-591-9600. (Dec '92)

Listen ♮♮♮♮

Listen is an educational tool for ear training. It offers a piano keyboard and a guitar fret board to input notes. Wide range of exercises. Supports MIDI. Version 2.1 reviewed. Version 2.13 shipping. Requires Macintosh Plus or later and System 6.03 or later. $99; five-user Listen Lab Pack, $249. Imaja, P.O. Box 6386, Albany, CA 94706. 510-526-4621. (Jan '87)

M ♮♮♮

M is a music-composition program that works with MIDI data in real time. Unique, entertaining, and powerful but requires lots of practice and patience. Version 1.0 reviewed. Version 2.2 shipping. Requires Macintosh Plus or later, MIDI interface, and MIDI synthesizer. $119 direct. Dr. T's Music Software, Inc., 124 Crescent Rd., Needham, MA 02194. 617-455-1454. (Oct '87)

MacRecorder Sound System ♮♮♮♮½

MacRecorder is an audio digitizer that can add sounds to your Mac system, animations, or HyperCard stacks. Supports an extensive array of audio-manipulation effects. HyperSound Toolkit makes adding sounds to HyperCard stacks easy. Version 2.0 reviewed. Version 1.0 Pro shipping. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive. $349. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Jan '90)

Magic Flute Audio Notes ♮♮♮♮

The Magic Flute Audio Notes gives a thorough introduction to Mozart's opera. Nonintuitive interface but manageable. Attractive graphics. Difficult to install. Requires Mac Plus or later, System 6.03 or later, a hard drive, a CD-ROM drive, and speakers or headphones. $66. Warner New Media, 3500 W. Olive Ave., Ste. 1050, Burbank, CA 91505. 818-955-9999. (Nov '90)

Master Tracks Pro ♮♮♮♮½

Master Tracks PRO is a full-featured second-generation MIDI sequencer. Adheres well to the Mac interface. Has graphic-controller editing. Version 4.0 reviewed. Version 5.0 shipping. Requires Macintosh Plus or later, a hard drive, and MIDI interface. $495; Trax 2.2 (junior version), $99. Passport Designs, Inc., 100 Stone Pine Rd., Half Moon Bay, CA 94019. 415-726-0280. (Dec '87)

Master Tuner ♮♮♮♮

Master Tuner lets you use your Mac to check your musical instrument's tuning. Program displays an oscilloscope to trace whether a digitized sound is sharp or flat in relation to a set scale. Also generates a reference note as a basis for tuning. Can set custom temperaments. Requires Macintosh with a built-in microphone or an audio digitizer such as MacRecorder. $69.95. Andromeda Computer Systems, 8043 33rd Avenue N.W., Calgary, Alberta T3B 1L5 Canada. 403-247-5300. (Dec '92)

MIDI Companion ♮♮♮♮½

MIDI Companion is a MIDI tool that lets you patch MIDI signals, sounds, and channels through the DA and separate sounds for single-channel playback. Has extensive electronic documentation. Version 1.0 reviewed. Shareware (Robert Patterson), $15; available from on-line services such as ZiffNet/Mac. (Oct '90)

Mr. SoundFX ♮♮♮½

Mr. SoundFX is a commercial version of the shareware utility, SoundMaster, which lets you assign sounds to a wide range of actions, including startup, shutdown, disk insertion or ejection, and assorted key presses. The twist here is that half the sounds are created by Michael Winslow, who rose to fame making silly noises in the movie *Police Academy*. Check out this product if you want your Mac to eject disks to the sound, for example, of Barry White saying, "I need you, baby." $29.95. Prosonus, 11126 Weddington St., North Hollywood, CA 91601. 800-999-6191 or 818-766-5221. (Dec '92)

Music Mouse ♮♮♮♮♮

Music Mouse gives you instant musical feedback as you move the mouse and type on the keyboard, thus controlling tempo, vibrato, and volume. Version 1.0 reviewed. Version 2.04 shipping. Requires Mac Plus or later. $49 direct. Dr. T's Music Software, Inc., 124 Crescent Rd., Needham, MA 02194. 617-455-1454. (May '87)

Music Writer ♮♮½

Music Writer is a promising but frustrating program for generating musical notation automatically from MIDI or mouse input. Three packages offer 3, 6, or 40 musical staves, respectively. Imports and interprets standard Format 1 MIDI files. Allows nonstandard note heads, chord symbols, percussion notation, part extraction, and PostScript printing using Adobe's Sonata typeface (only the screen font is included; the printer font must be purchased separately). Unreliable recognition of special notes. Interface offers many useful functions, but overall operation is prone to system crashes. Version 1.1 reviewed. Version 1.4 shipping. Requires 2MB of RAM, System 6.03 or later, and a hard drive. $119; Level 2, $295; Level 3, $595. Pygraphics, P.O. Box 639, Grapevine, TX 76051. 800-222-7536 or 817-481-7536. (Sept '91)

MusicProse ♮♮♮♮

MusicProse was designed for preparing lead sheets, piano-vocal parts, and small ensemble scores. It's easy to learn and use. Can import and play back almost anything. Version 1.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later, MIDI instrument and interface, and a hard drive; 68030 CPU and 4 MB of RAM recommended. $249. Coda Music Software, 1401 E. 79th St., Bloomington, MN 55425. 800-843-2066 or 612-854-1288. (May '90)

Orchestra: The Instruments Revealed, The ♮♮♮♮

The classic children's introduction to the orchestra — Benjamin Britten's "The Young Person's Guide to the Orchestra" — has been turned into an interactive CD-ROM tool for learning about instruments and musical forms. Excellent commentary and annotations. An analysis of Britten's music is included, along with an audible time line that traces music history from Gregorian chant to modern jazz. Or you can just lean back and listen to the music. Requires Macintosh Plus or later, System 6.03 or later, a hard drive, a CD-ROM drive, and speakers or headphones. $79.98. Warner New Media, 3500 W. Olive Ave., Ste. 1050, Burbank, CA 91505. 818-955-9999. (Dec '92)

Performer ♮♮♮♮

Performer is a full-featured MIDI sequencer that includes looping, SMPTE syncing, 32 simultaneous Ins and Outs, unlimited overdubbing, and compatibility with Professional Composer for transcription. Version 2.2 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later with 4 MB of RAM, System 6.03 or later, MIDI interface, and two floppy drives (hard drive recommended). $495; MIDI Time Piece interface, $595. Mark of the Unicorn, Inc., 1280 Massachusetts Ave., Cambridge, MA 02139. 617-576-2760. (Jan '88)

Practica Musica ♮♮♮♮♮

Practica Musica uses an interactive game and practice approach to teach music theory and ear training. Excellent training tool for serious music study as well as for developing a trained ear for intervals, chords, and melodies. Includes simple pitch reading and writing, scales, modes, interval recognition, and chord spelling. Supports MIDI. Version 1.5 reviewed. Version 2.3 shipping. Requires Macintosh Plus or later. $125. Ars Nova Software, P.O. Box 637, Kirkland, WA 98083. 800-445-4866 or 206-889-0927. (Aug '90) ★ '87 Eddy

Rite of Spring, The ♮♮♮♮♮

Featuring a wonderful performance of Stravinsky's famous work by Charles Dutoit and

MICE RATINGS ♮ ♮½ ♮♮ ♮♮½ ♮♮♮ ♮♮♮½ ♮♮♮♮ ♮♮♮♮½ ♮♮♮♮♮

the Montreal Symphony, this CD-ROM also includes lucid historical and analytical information. The disc is superbly programmed in HyperCard. Its components explain aspects of the ballet, Stravinsky's style, the music, and individual instruments. Version 1.01 reviewed. Version 1.02 shipping. Requires Macintosh Plus or later, HyperCard 2.0v2 or later, a hard drive, and a CD-ROM drive. $99.95. The Voyager Company, 1351 Pacific Coast Hwy., Santa Monica, CA 90401. 800-446-2001 or 310-451-1383. (Aug '91)

Sound Manager Package ⭐⭐⭐⭐½

Sound Manager Package is a group of well-implemented sound-file manipulators and players. It's one of the best, most versatile utility sets available for sound (as opposed to music) aficionados. Many useful and amusing sounds are also included on-disk. Includes manual. Version 1.4 reviewed. Version 1.76 Sound Mover, 2.11 SndControl shipping. Requires Macintosh Plus or later with 2 MB of RAM; hard drive recommended. Shareware, $25; available from on-line services such as ZiffNet/Mac. Riccardo Ettore, 67 Rue de la Limite, 1970 W-Oppem, Belgium (011) 322-767-9217. (Nov '89)

SoundEdit Pro ⭐⭐⭐⭐

SoundEdit Pro provides good tools for recording, editing, and mixing digitized sound. This enhanced version of the original SoundEdit maintains support for the MacRecorder. Needs minor interface improvements. Also works with newer Macs' built-in sound-recording capabilities. Supports 16-bit (CD-quality) sound files. A virtual-memory scheme can spool sound files out of limited RAM on to your hard drive. Good range of special effects and superior sound-mix quality. Version 1.0 reviewed. $295; with MacRecorder, $349; upgrade from SoundEdit, $75. Macromedia, Inc., 600 Townsend St., San Francisco, CA 94103. 415-442-0200. (Sept '92)

SoundMaster ⭐⭐⭐⭐½

SoundMaster is an elegant INIT/cdev that lets you assign sounds to a wide range of actions, including startup, shutdown, disk insertion or ejection, and assorted key presses. Keeps track of the amount of memory consumed by sounds. Version 1.1 reviewed. Version 1.6.5 shipping. Requires System 4.1 or later. $20. Bruce Tomlin, 15801 Chase Hill Blvd., Ste. 109, San Antonio, TX 78256. (Nov '89)

Studio Session ⭐⭐⭐⭐½

Studio Session consists of two programs — Editor and Player — that produce music with six voices of digitized sound. Excellent program and manual. Version 1.1 reviewed. Version 2.2 Super Studio Session shipping. $129. Bogas Productions, 751 Laurel St., Ste. 213, San Carlos, CA 94070. 415-592-5129. (Aug '87) ★ '86 Eddy

Studio Vision ⭐⭐⭐⭐½

Studio Vision is the first software package that seamlessly integrates MIDI data with digital audio recording. It lets you record vocals or non-MIDI instruments in the same document as MIDI data and then play it back along with the music. Actually an extension of Vision (Opcode's top-of-the-line MIDI sequencer), Studio Vision adds 16 tracks of audio data (assignable to 2 channels) to Vision's 99 tracks (assignable to 32 MIDI channels). Time can be notated in musical terms (bars/beats/units) or in video terms (hours/minutes/frames), with SMPTE locking. Version 1.21 reviewed. Version 1.4 shipping. Requires Mac SE/30 or Mac II series, sound-digitizing card, a MIDI interface, and a hard drive. $995. Opcode Systems, Inc., 3950 Fabian Way, Ste. 100, Palo Alto, CA 94303. 415-856-3333. (June '91) ★ '91 Eddy

Super Librarian ⭐⭐⭐½

Super Librarian is a multiplatform universal patch librarian for MIDI synthesizers. Organizes different groups of instruments or different banks of a single instrument into a performance. Buttons for sending and receiving patch information are inside each Device Folder rather than on a menu. Allows transfer of patches from one type of computer to another as long as same profile is loaded into each machine. Un-Mac-like interface. Version 1.4 reviewed. Version 3.34 shipping. Requires Macintosh Plus or later, except Quadras. $99 direct. Pixel Publishing, 641 Caledonia Rd., Toronto, Ontario M6E 4V8 Canada. 416-785-3036. (Nov '90)

Trax ⭐⭐⭐½

Simple enough for beginners, Trax is a solid, general-use sequencer that uses a standard tape-recorder analogy. It could use some of the higher-end functions available in more-powerful sequencer programs. Uses same graphic interface as Passport's professional sequencer, Master Tracks Pro. Works with Apple's MIDI Manager, but doesn't recognize SMPTE time code. Version 1.2 reviewed. Version 2.2 shipping. Requires Mac Plus or later and MIDI interface; hard drive recommended. $99. Passport Designs, Inc., 100 Stone Pine Rd., Half Moon Bay, CA 94019. 415-726-0280. (Feb '91)

Turbosynth ⭐⭐⭐⭐⭐

Turbosynth creates sounds for a digital sampler using modular-synthesis techniques. Good harmonic spectral inverter. Lacks an easy method of multisampling. Version 2.0 shipping. Requires Macintosh Plus or later, sampler, and MIDI interface. $349. Digidesign, 1360 Willow Rd., Ste. 101, Menlo Park, CA 94025. 415-688-0600. (Oct '88)

UpBeat ⭐⭐⭐⭐

UpBeat turns the Mac into a front panel for a highly complex and versatile drum machine. Input patterns with mouse, MIDI keyboard, or drum machine. Version 1.2 reviewed. Version 2.05 shipping. Requires Mac Plus or later, MIDI interface, and MIDI synthesizer. $129 direct. Dr. T's Music Software, Inc., 124 Crescent Rd., Needham, MA 02194. 617-455-1454. (May '88)

Vision ⭐⭐⭐⭐½

Vision is a Mac sequencer that supports full SMPTE control, event-list and graphics editing; real-time and step recording; looping; tempo, meter, and dynamic changes; and standard MIDI files. MIDI Keys maps certain Mac keyboard commands to your MIDI controller. Faders window supports 32 faders, offering real-time control of volume, tempo, and synthesizer-specific functions. Copy-protected. Version 1.01 reviewed. Version 1.4 shipping. Requires Macintosh Plus or later, MIDI interface, and MIDI synthesizer. $495. Opcode Systems, Inc., 3950 Fabian Way, Ste. 100, Palo Alto, CA 94303. 415-856-3333. (Dec '89)

Voyager CD AudioStack ⭐⭐⭐⭐⭐

The Voyager CD AudioStack is a HyperCard tool kit that precisely controls a compact disc (in a CD-ROM player) to create musical stacks. The scripts are thoroughly and clearly commented, and anyone with HyperTalk proficiency should find them easy to modify. Version 1.0 reviewed. Version 1.2 shipping. Requires Mac Plus or later, HyperCard 2.1, a hard drive, a CD-ROM drive, and speakers or headphones. $195. The Voyager Company, 1351 Pacific Coast Hwy., Santa Monica, CA 90401. 800-446-2001 or 310-451-1383. (Nov '90)

NETWORKING & CONNECTIVITY

3Com EtherLink/NB ⭐⭐⭐½

This NuBus Ethernet card has average performance. Version 1.1 reviewed. Requires NuBus-capable Mac. $595; bundled with EtherLink TP transceiver, $670. 3Com, 5400 Bayfront Plaza, Santa Clara, CA 95052. 800-638-3266 or 408-764-5000. (June '90)

3Com EtherLink/SE ⭐⭐⭐⭐

This Ethernet interface has very fast SE client, server, and raw performance. Version 1.0 reviewed. Requires Macintosh SE. $595. 3Com, 5400 Bayfront Plaza, Santa Clara, CA 95052. 800-638-3266 or 408-764-5000. (June '90)

AccessPC ⭐⭐⭐⭐½

AccessPC is an INIT that lets the Mac desktop mount MS-DOS and floppy disks, as well

MICE RATINGS ½ 1 1½ 2 2½ 3 3½ 4 4½ 5

as PC-compatible removable cartridges with higher capacity. Assigns Macintosh Type and Creator codes to MS-DOS files, which lets specified Mac applications open them automatically without going through the Apple File Exchange utility. Works with DOS floppy drives from Apple, PLI, and Kennect. Includes universal Multi-Driver (an INIT and control panel) to help with PC drives that have trouble mounting on the Mac desktop. Works well in combination with Insignia Solutions' SoftPC running PC applications on a Mac hard drive. Version 1.1 reviewed. Requires any Mac with FDHD SuperDrive, or external DOS floppy drive, or removable-cartridge drive. $99. Insignia Solutions, 526 Clyde Ave., Mountain View, CA 94043. 415-694-7600. (Aug '91)

AlisaTalk ⭐⭐⭐

AlisaTalk, a file server for networked Macs, provides numerous features for VAX, DOS, and Mac interoperability. Slow for AFP file sharing, and requires knowledge of VMS. Allows unlimited number of simultaneous users. Version 3.3 reviewed. Requires VAX. 10-user license, $1,500; license for unlimited users, $4,700. Alisa Systems, 221 E. Walnut St., Ste. 175, Pasadena, CA 91101. 818-792-9474. (June '91)

Apple Ethernet NB Card ⭐⭐⭐⭐

An excellent performer in file-transfer tests. Has 3Com hardware. Good raw performance. Requires NuBus-capable Mac; adapter required for use in IIsi. $424. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (June '90)

AppleShare Server ⭐⭐⭐⭐½

AppleShare is powerful, inexpensive file-server software from Apple. Fast, and easy to configure and administer. Lets network users protect files from other users at the folder level. Permits setup and administration from Mac, choice of LocalTalk or Ethernet connection, and AppleShare-PC support. Allows a maximum of 120 simultaneous users, and multiple applications can run on the server. Good print-spooling capabilities for up to five printers. Version 3.0 reviewed. Version 3.01 shipping. Requires a dedicated Mac SE/30 or higher with 4 MB of RAM, System 7.0 or later, and a large, fast hard drive. $1,199. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Apr '92)

AppleTalk Internet Router ⭐⭐⭐½

This software router can create a large internet with EtherTalk and TokenTalk. Doesn't support dial-in access, but offers support for AppleTalk Phase 2, mixed Phase 1 and Phase 2, and token-ring networks. Cabling can be thick coaxial, thin coaxial, or twisted-pair. Quality of technical support depends heavily on locating a knowledgeable, cooperative, authorized Apple dealer. Version 2.0 reviewed. $399. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Apr '91)

Applied Engineering QuadraLink ⭐⭐⭐⭐⭐

The QuadraLink occupies a NuBus slot and cleanly adds four 8-pin mini-DIN RS-422 serial connectors to the Mac's back panel. Uses Mac's Communication Toolbox or control panel software to manage and even rename the extra ports. Networking option lets you share connected devices such as printers with other users on your AppleTalk network. Doesn't add ADB ports. Perfect for clearing cable clutter or sharing expensive devices attached to (and normally usable only by) one Macintosh. Version 1.01 reviewed. Requires NuBus-capable Mac. $219; 5-user networking option, $109 ($36 for each five additional users); high-speed DMA version, $365. Applied Engineering, 3210 Beltline Rd., Dallas, TX 75234. 800-554-6227 or 214-241-6060. (July '92)

APT Communications ComTalk ⭐⭐⭐

This EtherTalk/LocalTalk router is a speed demon, available in the widest variety of configurations and prices. APT Internet Manager 5.0 software is powerful but difficult to understand. Router code is in upgradable ROM, and the CPU is a Motorola 68000. Can handle as many as six LocalTalk networks but only one EtherTalk network. Offers support for AppleTalk Phase 2 or mixed Phase 1 and Phase 2. Version ComTalk HX shipping. $7,000 with one Ethernet and six LocalTalk ports; other configurations, $2,500 to $8,500. APT Communications, Inc., 9607 Dr. Perry Rd., Ijamsville, MD 21754. 301-831-1182. (Apr '91)

Asanté 10T Hub/8 ⭐⭐⭐½

This compact, nonmanaged 10BASE-T hub includes eight 10BASE-T ports, a BNC port, and a hierarchical port. Lacks an AUI port. Power supply is external. Documentation is informative. Five-year warranty. $399. Asanté Technologies, Inc., 404 Tasman Dr., Sunnyvale, CA 94089. 800-662-9686 or 408-752-8388. (Oct '92)

Asanté 10T Hub/12 ⭐⭐⭐⭐

This compact, nonmanaged 10BASE-T hub includes twelve 10BASE-T ports, BNC and AUI ports, and a hierarchical port. Offers 12 RJ-45 ports or 1 RJ-25 port. Has LEDs to monitor collision and link status. Power supply is external. Informative documentation. Five-year warranty. Pre-10BASE-T-compatible. $799. Asanté Technologies, Inc., 404 Tasman Dr., Sunnyvale, CA 94089. 800-662-9686 or 408-752-8388. (Oct '92)

Asanté MacCon+ 30iE ⭐⭐⭐⭐½

This Ethernet device in a Macintosh SE/30 is a very fast AppleTalk Phase I server. Fast raw performance. Requires Macintosh SE/30 or IIsi. $249. Asanté Technologies, Inc., 404 Tasman Dr., Sunnyvale, CA 94089. 800-662-9686 or 408-752-8388. (June '90)

Asanté MacCon+ 30i ET ⭐⭐⭐⭐½

This PDS card provides 10-BASE-T Ethernet networking capability. Includes thicknet AUI port, diagnostic software, and link-integrity LED. Doesn't auto-configure. Compatible with the IIsi. Five-year warranty. Requires Macintosh SE/30 or IIsi. $249. Asanté Technologies, Inc., 404 Tasman Dr., Sunnyvale, CA 94089. 800-662-9686 or 408-752-8388. (Sept '91)

Asanté MacCon+ II/E ⭐⭐⭐½

This Ethernet board offers good performance and a competitive price. Skimpy manual, not for novices. Requires Macintosh II series or higher with NuBus. $249. Asanté Technologies, Inc., 404 Tasman Dr., Sunnyvale, CA 94089. 800-662-9686 or 408-752-8388. (June '90)

Asanté MacCon+ IIET ⭐⭐⭐⭐½

This NuBus card provides 10-BASE-T Ethernet networking capability. Includes thicknet AUI port, diagnostic software, and link-integrity LED. Doesn't auto-configure. Five-year warranty. Requires Mac II series or higher with NuBus. $249. Asanté Technologies, Inc., 404 Tasman Dr., Sunnyvale, CA 94089. 800-662-9686 or 408-752-8388. (Sept '91)

Asanté MacCon+ LC ⭐⭐⭐⭐⭐

MacCon+ LC is a PDS card that provides 10BASE-T Ethernet networking capability. Includes BNC port, diagnostic software, and link-integrity LED. Auto-configuring. FPU socket on board. Five-year warranty. Requires Macintosh LC. $249. Asanté Technologies, Inc., 404 Tasman Dr., Sunnyvale, CA 94089. 800-662-9686 or 408-752-8388. (Sept '91)

Asanté MacCon+ SE/E ⭐⭐⭐⭐

This inexpensive Ethernet device provides very good performance as an SE client. Requires Macintosh SE. $249. Asanté Technologies, Inc., 404 Tasman Dr., Sunnyvale, CA 94089. 800-662-9686 or 408-752-8388. (June '90)

Avatar LanWay E-10T Direct Slot ⭐⭐⭐⭐

LanWay E-10T Direct Slot is a PDS card that provides 10-BASE-T Ethernet networking capability. Includes thicknet

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

MacCenter™

The Center Of The Macintosh Universe™



MacUser

Texas Instruments

$1199 TI microLaser

ALL PRINTER PRICES INCLUDE FREE TONER

"The microLaser Turbo smoked the competition when processing complex graphics. Fastest printer tested."
– MacUser, September 1992

microLaser *Plus* PS17	$1199
microLaser *Plus* PS35	$1329
microLaser *Turbo*	$1499
1 Megabyte Upgrade	$49

- Postscript Level 1 & Level 2, 300 dots per inch
- 9 pages per minute
- up to 4.5 (microLaser) or 10.5 megs of memory (Turbo)
- Mac & PC Compatible with 3 Interface Ports
- Optional 500 sheet second paper drawers & envelope feeders
- 17 or 35 typefaces

QMS

PS 860 Hammerhead (11x17)	$4099
PS 815MR	$3895

Hewlett Packard

Deskwriter	$395
Deskwriter C	$679

Silentwriter Model 95

$1379

MacUser



NEC

- Postscript Level 2 & HP PCL5
- 6 pages per minute
- up to 5 megabytes of memory
- patented Sharp Edge technology delivers 600 DPI equivalent quality
- automatic interface switching supports both Macs & PCs simultaneously
- built-in envelope tray
- .300 dots per inch

NEC Silentwriter Model 95fx Printer/Fax	*Call!*
Second Paper Drawer	$299
2 Megabyte Upgrade	$159

800 944 0944

FAX 512-444-3726 International Orders 512-445-5114

©MacCenter 1992

DAYSTAR DIGITAL

MACWORLD MW EDITORS' CHOICE

MacUser

3 Year WARRANTY



PowerCards

40 MHz PowerCard 030 (IIcx only)	$599
50 MHz PowerCard 030 (II, IIx, IIcx)	$899

PowerCaches (Non-Universal & Universal)

40 MHz PowerCache 030	$599/$799
50 MHz PowerCache 030	$899/$1099

"...this is one Mac purchase you'll never regret."
MacWEEK 9/17/91

All PowerCards & PowerCaches are brand new, in original DayStar boxes. All sales final.

Equalizer LC	$199
RAM PowerCard	$449
DualPort IIsi	$179
FastCache Quadra (700/900)	$275
FastCache Quadra (700/900/950)	$399
Combo Cache IIsi w/ FPU	$319
Classic & SE PowerCahce 16 MHz w/ FPU	$499

radius™



MACWORLD MW EDITORS' CHOICE

BUYER'S GUIDE ROCKET SPECIALS!

Rocket 25i	$1199
Rocket 25	$1599
Rocket 33	$1999
RocketShare	$429

Plus ...
Color for your PowerBook!
PowerView $499

NEWER™

fx/Overdrive II	$329
Quadra 700/Overdrive	$259
Quadra 900/Overdrive	$119
Image Magic-Quadra/PDS	$699



LIFETIME WARRANTY

Call MACCENTER™ for the best in memory pricing!

4 Meg 80ns **$125** (with trade in)

2 Meg 80ns **$65**

1 Meg 80ns **$35**

6 Meg PowerBook Memory **$259**

PowerBook 160, 180, 210, 230 Memory – In Stock

800 944 0944

FAX 512-444-3726 International Orders 512-445-5114

radius™

21" MONITORS AT A 19" PRICE!



- Quadra Compatible
- 72 or 78 dpi with the Radius Precision Color Interface
- 1152 x 870 or 1072 x 810
- .28mm dot pitch
- View two full pages of text and graphics
- 30% larger viewing area than a 19" monitor
- 75 Hz

$1895

Color Pivot®



$1275

PrecisionColor Display/20

$2459



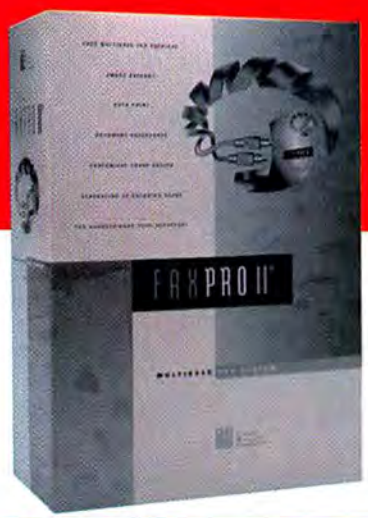
- Compliant with Swedish emissions standards
- Connects to virtually any video card system
- 1152 x 882
- Proven Trinitron quality
- Built-in anti-glare system
- Quadra owners, take advantage of special JPEG compression with on-board video!
- 71 KHz

SUPERMAC

ThunderStorm	$809
21" Platinum Monitor	$999
Monochrome Card	$349
VideoSpigot *starting at*	$399



SuperMatch 20" $1499



FaxPro II

by Cypress Research Corporation

MultiUser Fax Software for the Macintosh! Compatible with Supra FaxModems at either 14,400 or 9600 BPS!

Supports multiple zones, customized cover sheets, multiple document enclosures and unlimited users per zone!

Call now for an outstanding price!

E-MACHINES

T16 II	$1295
T19 II	$2395

Futura Color Cards from only $399



SONY

1604 17"	$1099
1304 14"	$649
1320 For LC	$399

NEC

MultiSync 3FGx	$639
MultiSync 4FG	$759
MacFG 8X Color Card	$799
MacFG 24X Color Card	$1599

MODEMS

SupraFAXModem V.32bis

The SupraFAXModem V.32bis is the only 14,400 bps modem with 14,400 bps send and receive fax!

MW ★★★★



SupraFaxModem V.32bis w/sft/cbl $349

USRobotics

US Robotics Courier HST	$559
US Robotics Courier V.32bis	$599
US Robotics Dual Standard	$799

Global Village
- Teleport
- Teleport FullFax 2.0
- PowerPort/Gold

Hayes
- Ultra 9600
- Ultra 144

800 944 0944

FAX 512-444-3726 International Orders 512-445-5114

MacCenter™

The Center Of The Macintosh Universe™

Five-Year Warranty! Thirty-Day Money Back Guarantee!

Drives include and are formatted with Golden Triangle's DiskMaker™. Micropolis drives are SCSI-2 and fast SCSI-2, System 7 & A/UX compatible, carry a 5 Year Warranty, include brackets or metal cases, universal power supplies, cables and 12 MB of shareware. MacCenter™ also carries fine drives from FWB, Fujitsu, Quantum, Hewlett-Packard, and Micropolis. Drive capacities are manufacturer's unformatted specifications. Formatted capacities will be less. Access times are effective access times based upon operation of hardware caches.

GOLDEN TRIANGLE



Falcon Micropolis Drives

		Int	Ext
385 MB	4.4 ms	$1099	$1199
760 MB	4.6 ms	$1399	$1499
1.2 Gig	4.1 ms	$1999	$2099
1.2 Gig 3.5"	10 ms	Call!	Call!
1.5 Gig	4.1 ms	$2299	$2399
1.6 Gig	<11.5 ms	$2999	$3099
2.0 Gig	3.9 ms	$3399	$3499
2.4 Gig	<11.5 ms	Call!	Call!

Eagle™ SyQuest $399



Buy an Eagle™ and get two 44MB cartridges for only $89!

Eagle 44	$399
Eagle 88	$499
44 Meg Cartridge	$65
88 Meg Cartridge	$99

All Eagle SyQuest drives come with a metal case, a universal power supply, 12 megs of shareware, SCSI & power cables and a two year warranty. Ask about our Five Year Warranty.

Ask about our FREE Buyer's Guide Falcon, Eagle and Puma software bundle specials!

SCANNERS



UMax MacUser ★★★★

UC630	600 DPI	$1139
UC840	800 DPI	Call!
UC1200	1200 DPI	$3069

PUMA CAPTURED, NOT TAME℠ 256 Meg 3.5" Optical $1699



Puma 128 MB 3.5" Drive	$1399
Puma 256 MB 3.5" Drive	$1699
128/256 Meg 3.5" Cartridge	$49/$99
600 Meg 5.25" Cartridge	$105

All Puma Optical drives include one cartridge, a universal power supply, 12 megs of shareware, SCSI & power cables, and a one year warranty. Five Year Warranty available!

MACINTOSH SYSTEMS

PowerBook 145 4.40	$1999
PowerBook 160 4.40	Call!
PowerBook 180 4.80	Call!
Quadra 700	$3499
Quadra 950	Call!

We also stock IIci, IIsi & IIvx models.

Accessories	
PowerBook 140/170 Batteries (2 hr)	$79
PowerBook 140/170 Batteries (3 hr)	$89
Lind Full Cycle Battery Charger	$188
Envisio Display Adaptor (4 MB)	$1049
Envisio Display Adaptor (6 MB)	$1329



- **NO SURCHARGE OR MINIMUM** with MasterCard and Visa.
- **YOUR CREDIT CARD IS NOT CHARGED** until your order is shipped.
- **PERSONAL CHECKS, COMPANY CHECKS,** money orders and cashier's checks are accepted; money orders and cashier's checks clear immediately, please allow ten days for personal and company checks to clear.
- **APO AND FPO ORDERS ARE ACCEPTED** with no minimum or surcharge.
- **PURCHASE ORDERS:** Educational, Government and Institutional purchase orders are accepted with thirty (30) day terms. Corporate POs accepted with 30 day terms upon credit approval. No minimum or surcharge for purchase orders.
- **INTERNATIONAL ORDERS:** No minimum orders or surcharge for international orders, whether placed by mail, fax or telephone.
- **MONEY BACK GUARANTEE:** Most products carry a manufacturer's 30 or 60 day money back guarantee. Please ask for details when ordering.

- **ALL PRICES, PROMOTIONS AND PRODUCT AVAILABILITY** are subject to change without notice. We regret we cannot be responsible for typographical errors and cannot guarantee compatibility of all products.
- **ALL RETURNS MUST HAVE AN AUTHORIZATION NUMBER.** Please call 512-445-6483. All returns or refused shipments are subject to a restocking fee.
- **HOURS:** 8:00 am - 8:00 pm CST M-F
 10:00 am - 4:00 pm CST Saturday
 Sunday: Call, you may get lucky.

AIRBORNE EXPRESS · UPS

MACCENTER™

4930 South Congress; Suite 303 • Austin, Texas 78745

CIRCLE 1 ON READER SERVICE CARD.

Apple Duo Dock	Call!
Apple Duo Mini Dock	Call!
E-Machines PowerLink Presentor	Call!
E-Machines PowerLink DeskNet	Call!

We also stock PowerBook Batteries, Battery Chargers, Carrying Cases, Modems and Display Adapters.

800 944 0944

FAX 512-444-3726 International Orders 512-445-5114

©MacCenter 1992

AUI port and link-integrity LED, but no diagnostic software. Auto-configuring. Requires Macintosh SE/30. $345. Avatar Corp., 65 South St., Hopkinton, MA 01748. 800-282-3270 or 508-435-3000. (Sept '91)

Avatar LanWay E-10T NuBus ⭐⭐⭐

The LanWay E-10T NuBus is a NuBus card that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port and link-integrity LED. Lacks diagnostic software. Auto-configuring. Skimpy manual. Requires Macintosh II series. $345. Avatar Corp., 65 South St., Hopkinton, MA 01748. 800-282-3270 or 508-435-3000. (Sept '91)

BroadCast ⭐⭐⭐

BroadCast is a mail system for small networks. You can send short messages over an AppleTalk network to one or more users. Lets you include icons with messages. Conversation must be carried on in real time; you can't leave a message in someone's mailbox. Version 1.0 reviewed. Version 1.2 shipping. Shareware (Joachim Lindenberg), $25 per AppleTalk zone; available from on-line services such as ZiffNet/Mac. (Oct '90)

Cabletron E4000 ⭐⭐⭐½

This Ethernet device is a slow AppleTalk Phase I SE client but a fast Phase 2 SE server. Fiber-optics options are available. Version 2.0 reviewed. Version 2.32 shipping. Requires Macintosh SE. $440 to $659, depending on configuration. Cabletron Systems, Inc., 35 Industrial Way, P.O. Box 6257, Rochester, NH 03867. 603-332-9400. (June '90)

Cabletron E5000 ⭐⭐⭐⭐½

This Ethernet device in a Macintosh SE/30 is a very fast AppleTalk Phase 2 server. Optional fiber-optics transceiver. Version 2.0 reviewed. Version 2.32 shipping. Requires Macintosh SE/30. $449 to $659, depending on configuration. Cabletron Systems, Inc., 35 Industrial Way, P.O. Box 6257, Rochester, NH 03867. 603-332-9400. (June '90)

Cabletron E5010 DNI ⭐⭐⭐½

This PDS card provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port, powerful diagnostic software, and link-integrity LED. Doesn't autoconfigure. Excellent manual. Version 2.0 reviewed. Version 2.32 shipping. Requires Macintosh SE/30. $449 to $489. Cabletron Systems, Inc., 35 Industrial Way, P.O. Box 6257, Rochester, NH 03867. 603-332-9400. (Sept '91)

Cabletron E6000 ⭐⭐⭐⭐

This Ethernet interface offers excellent performance. Difficult to switch cable types. Has fiber-optics option. Version E6000-2.00 reviewed. Version E6100-2.32 shipping. Requires NuBus-capable Mac. $219 to $659, depending on configuration. Cabletron Systems, Inc., 35 Industrial Way, P.O. Box 6257, Rochester, NH 03867. 603-332-9400. (June '90)

Cabletron E6010 DNI ⭐⭐⭐½

The E6010 DNI is a NuBus card that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port, excellent diagnostic software, and link-integrity LED. Doesn't auto-configure. Good manual. Version 2.0 reviewed. Version 2.32 shipping. Requires Macintosh II series. $215 to $269. Cabletron Systems, Inc., 35 Industrial Way, P.O. Box 6257, Rochester, NH 03867. 603-332-9400. (Sept '91)

Cabletron MR9T ⭐⭐⭐

This compact, nonmanaged 10BASE-T hub includes nine 10BASE-T ports and a hierarchical port. Lacks BNC and AUI ports. Has auto-polarity adjustment and LEDs to monitor collision and link status. Power supply is external. $695. Cabletron Systems, Inc., 35 Industrial Way, P.O. Box 6257, Rochester, NH 03867. 603-332-9400. (Oct '92)

Cabletron MRX ⭐⭐⭐½

This nonmanaged 10BASE-T hub includes twelve 10BASE-T ports and user-configurable AUI, BNC, and fiber-optic ports. Has auto-polarity adjustment and LEDs to monitor collision and link status. Rack-mountable. Power supply is internal. Noisy fan. $1,395. Cabletron Systems, Inc., 35 Industrial Way, P.O. Box 6257, Rochester, NH 03867. 603-332-9400. (Oct '92)

Carbon Copy/Mac ⭐⭐⭐½

Carbon Copy Mac is a screen-sharing program that lets you access another networked Mac for technical support, training, or file management. A "guest" Mac can control only one host Mac, but multiple guests can simply observe a host. Supports both network and modem connections in the same package. Capable of file transfer between Macs. Provides the security feature of assigning different "classes" of users. Not color-capable. Version 2.0 reviewed. Version 2.04 shipping. Requires Macintosh Plus or later and System 6.04 or later. Single user, $99; per AppleTalk zone, $299. Microcom Utilities Product Group, P.O. Box 51489, Durham, NC 27717. 919-490-1277. (Dec '91)

Cayman GatorBox CS ⭐⭐⭐½

This EtherTalk/LocalTalk hardware router offers many gateway features, including TCP/IP connectivity. No battery backup. Supports AppleTalk Phase 2, mixed Phase 1 and 2 networks, SNMP and other protocols, but only one LocalTalk port is provided. Network-security features provide configuration protection and resource hiding, including zone, printer, and device filtering. Good setup information. With optional GatorShare software, a UNIX host looks like an AppleShare server. Unlimited free technical support. $2,795; GatorShare software, $1,995. Cayman Systems, 26 Landsdowne St., Cambridge, MA 02139. 617-494-1999. (Apr '91)

Cayman GatorCard E/II ⭐⭐⭐⭐½

This Ethernet interface is very fast. Uses top-notch Racal InterLan hardware. Version 1.1 reviewed. Requires NuBus-capable Mac. $449. Cayman Systems, 26 Landsdowne St., Cambridge, MA 02139. 617-494-1999. (June '90)

cc:Mail Mac Platform Pack ⭐⭐⭐½

cc:Mail is an E-mail application featuring keyboard loading of recipient names, message prioritizing, multiple enclosures, return receipts, reply and forwarding, storage folders, and archiving. Good interface. PC-to-Mac VGA-graphics-display translation. Requires PC for setup, administration, and server-to-server traffic. No DA for messaging. Slow sending messages to multiple recipients. Allows up to 20 file enclosures and up to 65,000 users per server. Version 1.22 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, System 6.03 or later, and network file server. $495; 8 users, $195 extra; 25 users, $595 extra. cc:Mail, 2141 Landing's Dr., Mountain View, CA 94043. 800-448-2500 or 415-961-8800. (Mar '92)

Compatible Systems Ether+ ⭐⭐⭐

Ether+ is a SCSI adapter that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port, diagnostic software, and link-integrity LED. Doesn't auto-configure. Must be at the end of a SCSI chain. Requires Macintosh Plus or later. $495. Compatible Systems Corp., P.O. Box 17220, Boulder, CO 80308. 800-356-0283 or 303-444-9532. (Sept '91)

Compatible Systems Ether•Route ⭐⭐⭐⭐

This hardware EtherTalk/LocalTalk router is easy to set up and use. Offers fast, solid performance. Current software is Ether•Route Manager 1.7.0. Router code is in upgradable ROM, and CPU is an 80C188. Can handle no more than two LocalTalk networks and only one EtherTalk network. Offers support for AppleTalk Phase 2 or mixed Phase 1 and Phase 2. Difficult to change cabling-type switch. Lacks TCP/IP support but an Ether•Route/TCP version is also available. Unlimited, free technical support. $1,495. Compatible Systems Corp., P.O. Box 17220, Boulder, CO 80308. 800-356-0283 or 303-444-9532. (Apr '91)

Compatible Systems Ether2 TP ⭐⭐⭐⭐

The Ether2 TP is a NuBus

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

card that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port, diagnostic software, and link-integrity LED. Doesn't autoconfigure. Version 1.0 software reviewed. Version 1.11 shipping. Requires Macintosh II series. $295. Compatible Systems Corp., P.O. Box 17220, Boulder, CO 80308. 800-356-0283 or 303-444-9532. (Sept '91)

CompuLAN 8000 TPC ⭐⭐

This nonmanaged 10BASE-T hub includes twelve 10BASE-T ports plus AUI and BNC ports. Has cascade port and LEDs to monitor link status. Rack-mountable. Power supply is external. No warranty. $699. CompuLAN, 180 Charcot Ave., San Jose, CA 95131. 800-486-8810 or 408-922-6888. (Oct '92)

DAL (Data Access Language) ⭐⭐⭐⭐

DAL is an API (application-programming interface) for sophisticated client/server database access. Server operating systems include IBM MVS and VM as well as VAX/VMS. Database-management systems include DB2, Ingres, Oracle, Rdb/VMS, SQL/DS, Sybase, Informix, and IBM MVS and VM. Offers server independence but is slower than Oracle's SQL*Net or TechGnosis' SequeLink. Version 1.1 reviewed. Version 1.35 shipping. Free with System 7.0; Client Toolkit, $695; servers, $995 – $30,000. APDA (Apple Programmers & Developers Association), P.O. Box 319, Buffalo, NY 14207. 800-282-2732 or 716-871-6555. (Jan '91)

DataClub Classic ⭐⭐⭐½

DataClub Classic is distributed-file-server software with the look and feel of a dedicated AppleShare server. Requires an AppleTalk Phase 1 network or Phase 2 with only a router present. Lets users combine folders from different Macs into one logical volume and move folders of data between Macs without changing the appearance of the combined volume. Can support 76 users, each using a control panel to manage access. System-7.0-savvy. Incomplete manual. Version 1.1.1 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later with 2 MB of RAM and System 6.03 or later. $175; 3-user package, $395; 10-user package, $795. Novell, Inc., 122 E. 1700 S., Provo, UT 84606. 800-453-1267 or 801-429-7000. (Sept '91)

David Systems Ether-T Mac ⭐⭐⭐

This NuBus card provides 10BASE-T Ethernet networking capability. Lacks thicknet AUI port, diagnostic software, or link-integrity LED. Two-year warranty. Requires Macintosh II series or higher. $275. David Systems, Inc., 701 E. Evelyn Ave., Sunnyvale, CA 94086. 800-762-7848 or 408-720-8000. (Sept '91)

David Systems VolksNet LAN ⭐⭐⭐½

This nonmanaged 10BASE-T hub includes twelve 10BASE-T ports and a hierarchical port. A 13th UTP, BNC, AUI, or fiber-optic port is optional. Has LEDs to monitor collision and link status. Power supply is internal. Tech support unfamiliar with Mac. Informative documentation. Two-year warranty. $795. David Systems, Inc., 701 E. Evelyn Ave., Sunnyvale, CA 94086. 800-762-7848 or 408-720-8000. (Oct '92)

Dayna DaynaPORT E/II-T ⭐⭐⭐½

The DaynaPORT E/II-T is a NuBus card that provides 10BASE-T Ethernet networking capability. It includes thicknet AUI port, limited diagnostic software, and link-integrity LED. Doesn't autoconfigure. Lifetime warranty. Version 4.0 software reviewed. Version 4.11 shipping. Requires Macintosh II series or higher and System 6.03 or later. $239. Dayna Communications, Inc., 50 S. Main St., Salt Lake City, UT 84144. 801-531-0600. (Sept '91)

Dayna DaynaPORT E/LC-T ⭐⭐⭐⭐½

This PDS card provides 10BASE-T Ethernet networking capability. Lacks additional ports. Comes with diagnostic software and link-integrity LED. FPU socket on board. Lifetime warranty. Version 1.0 software reviewed. Version 1.15 shipping. Requires Macintosh LC. $239; with math coprocessor, $389. Dayna Communications, Inc., 50 S. Main St., Salt Lake City, UT 84144. 801-531-0600. (Sept '91)

Dayna DaynaSTAR Hub-12 ⭐⭐⭐½

This nonmanaged 10BASE-T hub includes twelve 10BASE-T ports. Included BNC and AUI ports cannot be used simultaneously. Offers 12 RJ-45 ports or 1 RJ-21 port. Has auto-polarity adjustment. LEDs for monitoring collision and link status are awkwardly located. Power supply is internal. Noisy fan. Rack-mountable but mounting equipment not included. $995. Dayna Communications, Inc., 50 S. Main St., Salt Lake City, UT 84144. 801-531-0600. (Oct '92)

Dayna DaynaSTAR MiniHub ⭐⭐⭐

This compact, nonmanaged 10BASE-T hub is moderately priced. It includes eight 10-BASE-T ports and a BNC port. Has LEDs to monitor link status. Power supply is external. $389. Dayna Communications, Inc., 50 S. Main St., Salt Lake City, UT 84144. 801-531-0600. (Oct '92)

Digital DECrepeater 90T ⭐⭐⭐

This nonmanaged 10BASE-T hub includes eight 10BASE-T ports and a BNC port but lacks an AUI port. Can be used as a stand-alone hub or as a module in a Digital concentrator. Has LEDs to monitor collision and link status. Power supply is external. Toll-free tech support. $1,590. Digital Equipment Corp., 146 Main St., Maynard, MA 01754. 800-344-4825 or 508-486-5198. (Oct '92)

Dove FastNet III ⭐⭐½

This slow Ethernet device is a NuBus card. Good diagnostics. A configuration for twisted-pair wiring connection is available. Version 2.2 shipping. Requires NuBus-capable Mac. $239. Dove Computer Corp., 1200 N. 23rd St., Wilmington, NC 28405. 800-849-3297 or 919-763-7918. (June '90)

Dove FastNet SE ⭐⭐⭐

This Ethernet interface has average performance. Good diagnostics. A configuration for twisted-pair wiring connection is available. Version 2.2 shipping. Requires Macintosh SE. $299. Dove Computer Corp., 1200 N. 23rd St., Wilmington, NC 28405. 800-849-3297 or 919-763-7918. (June '90)

Dove FastNet SE/30 ⭐⭐½

This Ethernet device is a very slow AppleTalk Phase I SE/30 card. Good diagnostics. A configuration for twisted-pair wiring connection is available. Version 2.2 shipping. Requires Macintosh SE/30. $249. Dove Computer Corp., 1200 N. 23rd St., Wilmington, NC 28405. 800-849-3297 or 919-763-7918. (June '90)

Dove FastNetSCSI ⭐⭐

This Ethernet interface has very slow raw performance. On-board CPU. A configuration for twisted-pair wiring connection is available. Requires Macintosh SE or later, except Portable or PowerBook. $1,249. Dove Computer Corp., 1200 N. 23rd St., Wilmington, NC 28405. 800-849-3297 or 919-763-7918. (June '90)

EMAC SpeedLink II ⭐⭐⭐

This NuBus Ethernet card has average performance. Good software. Version "E" hardware, 2.6 software shipping. Requires NuBus-capable Mac and System 6.03 or later. $449. EMAC (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (June '90)

EMAC SpeedLink/II TP ⭐⭐⭐½

The EMAC SpeedLink/II TP is a NuBus card that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port, NCSA Telnet, diagnostic software, link-integrity LED, and auto-configuration. Two-year warranty. Version "E" hardware, 2.6 software shipping. Requires NuBus-capable Mac and System 6.03 or later. $449. EMAC (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

510-498-1111. (Sept '91)

EMAC SpeedLink SE/30 ⭐⭐⭐

This Ethernet device has very slow performance as an AppleTalk Phase 2 SE/30 server. Good performance as client. Good diagnostics. Version "E" hardware, 2.6 software shipping. Requires Macintosh SE/30. $449. EMAC (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (June '90)

EMAC SpeedLink/SE30 TP ⭐⭐⭐½

The SpeedLink/SE30 TP is a PDS card that provides 10-BASE-T Ethernet networking capability. Includes thicknet AUI port, diagnostic software, and link-integrity LED. Auto-configuring. Confusing manual. Two-year warranty. Version "E" hardware, 2.6 software shipping. Requires Macintosh SE/30 and System 6.03 or later. $449. EMAC (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (Sept '91)

Engage SyncRouter LTi ⭐⭐⭐⭐½

This router is a hardware/software combination that's fast and simple to use. Provides limited statistics on router traffic and has no automatic backup link. Besides LocalTalk and dial-up asynchronous links, supports synchronous DDS (Digital Data Service), ISDN, and T1 links. Maximum speed is 500 Kbps. Interfaces include RS-232, RS-449, and V.35, but not EtherTalk. Requires Macintosh Plus or later and System 6.03 or later. $2,195. Engage Communication, Inc., 9053 Soquel Dr., Aptos, CA 95003. 408-688-1021. (Jan '92)

EtherPeek ⭐⭐⭐⭐

This network-protocol-analyzer software can simulate network traffic for analysis and has many useful features. Modular design adapts well to new Ethernet cards and protocols, but performance suffers, because of complex application design. Features include sophisticated use of filters, triggers, and alarms. Supports AppleTalk, ARP, SNMP, IPX, DECnet, XNS, and IPTalk protocols. Built-in pager support. Version 1.5 reviewed. Requires Macintosh SE/30 or higher with Ethernet interface and System 6.05 or later. $795. AG Group, 2540 Camino Diablo, Walnut Creek, CA 94596. 510-937-7900. (Sept '92)

Farallon Ether Mac 30i Card for Ethernet ⭐⭐⭐½

The Ether Mac 30i Card is a PDS card that provides 10-BASE-T Ethernet networking capability. Includes thicknet AUI port and link-integrity LED. Lacks diagnostic software. Auto-configuring. Requires Mac SE/30 or IIsi. $249 to $529. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Sept '91)

Farallon Ether Mac II Card for Ethernet ⭐⭐⭐⭐

Farallon's Ether Mac II Card is a NuBus card that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port and link-integrity LED. Lacks diagnostic software. Auto-configuring. Requires Macintosh II series or higher. $249 to $329. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Sept '91)

Farallon PhoneNET StarController/12 EN ⭐⭐⭐½

This managed 10BASE-T hub includes twelve 10BASE-T ports and an AUI port but no BNC port. Has good documentation and can be used in a concentrator. In-band management via software requires LocalTalk StarController and bus connection. Pre-10BASE-T-compatible. Has LEDs to monitor link status. Power supply is external. Included StarCommand software offers GUI, password protection, out-of-band management, auto-partitioning, and per-port stats. Maximum management-bus length is 3,000 feet. Version 3.0 software reviewed. $1,295; StarController/24, $1,895. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Oct '92)

Flash ⭐⭐⭐½

Flash is a DA/INIT combination that transfers files in the background, with or without MultiFinder. Uses Finder folders to send and receive files. Has chat capability. Also lets you create a group folder, which sends copies of a file to everyone in a group. Setting the many options is unnecessarily complex. Good performance. Version 1.0 reviewed. Version 1.1 shipping. $199.95 per zone. Beagle Bros., 6215 Ferris Sq., Ste. 100, San Diego, CA 92121. 619-452-5500. (Sept '90)

Focus Enhancements EtherLAN SC ⭐⭐⭐½

Good SCSI-adapter client performance for an Ethernet interface. Requires Macintosh Plus or later. $249.99. Focus Enhancements, Inc., 800 W. Cummings Park, Ste. 4500, Woburn, MA 01801. 800-538-8866 or 617-938-8088. (June '90)

Focus Enhancements EtherLAN SC-T ⭐⭐⭐½

The EtherLAN SC-T (formerly NuvoLink SC-T) is a SCSI adapter that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port, diagnostic software, and link-integrity LED. Doesn't auto-configure. Must be at the end of SCSI chain. Five-year warranty. Requires Macintosh SE or later. $259.99. Focus Enhancements, Inc., 800 W. Cummings Park, Ste. 4500, Woburn, MA 01801. 800-538-8866 or 617-938-8088. (Sept '91)

Focus Enhancements TurboStar ⭐⭐⭐½

The TurboStar distributes AppleTalk signals to devices on a network and provides network-management and troubleshooting capabilities. Performance can be poor in complex wiring configurations. TurboStar management software is bundled. Version 1.0 reviewed. Version 1.1 shipping. Requires LocalTalk network. $499.99. Focus Enhancements, Inc., 800 W. Cummings Park, Ste. 4500, Woburn, MA 01801. 800-538-8866 or 617-938-8088. (May '90)

GraceLAN ⭐⭐⭐⭐

GraceLAN is network-management software that collects detailed information about connected Macs. Good interface. Can also scan hardware and software configuration of DOS-compatible PCs on the network. Draws network diagram. Has no internal database manager unless optional Asset Manager program is purchased. Supports workgroup passwords. Optional program Update Manager can create and distribute update packages and can delete or rename users' files. Version 2.0 reviewed. Requires Macintosh II series or higher with 4 MB of RAM, System 6.03 or later, and a hard drive. 50 users, $495; bundled GraceLAN, Asset Manager, and Update Manager, $1,495 to $1,995. Technology Works, Inc. (TechWorks), 4030 Braker Lane W., Ste. 350, Austin, TX 78759. 800-926-3148 or 512-794-8533. (Dec '92)

Inter•Poll ⭐⭐⭐½

Inter•Poll is a simple, reliable network-administration tool that's suitable for small LocalTalk networks (5 to 20 nodes). Doesn't support EtherTalk, but can create simulated network traffic for analysis. Has excellent manual. No support for filters, charts, or error management. Version 1.0 reviewed. Version 1.01 shipping. $129. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Feb '92)

LapLink Mac III ⭐⭐⭐⭐½

LapLink Mac III is a Mac-to-DOS and Mac-to-Mac file-transfer program that lets you have control from either computer. Version 3.0 has a revised interface. Uses a special cable to provide 750-Kbps transfer. It has an INIT that gives you background access to your remote Mac's files even when LapLink isn't running. You can protect the Mac globally for read/write or read-only access. Directory sort-and-search capability is provided, along with display filters to show and hide files. Version 3.0 reviewed. Version 3.2 shipping. Requires Macintosh Plus or later and System 5.0 or later. $149.95. Traveling Software, Inc., 18702

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

North Creek Pkwy., Bothell, WA 98011. 800-343-8080 or 206-483-8088. (Sept '90)

LocalPeek ⚡⚡⚡⚡

This network-protocol-analyzer software can simulate network traffic for analysis, and it has many useful features. Supports AppleTalk and SNMP. Features include use of filters, triggers, and alarms. Suitable for novices willing to learn basic protocol analysis. Built-in pager support. Version 1.11 reviewed. Requires Macintosh SE/30 or higher and System 6.05 or later. $495. AG Group, 2540 Camino Diablo, Walnut Creek, CA 94596. 510-937-7900. (Sept '92)

LocalSwitch ⚡⚡⚡⚡½

This 16-port, packet-switching LocalTalk hub can't match Ethernet speed, but it provides a significant performance boost for small, busy AppleTalk networks. Unlike a LocalTalk router, doesn't create a new zone to isolate some network traffic. Can offer cost-effective alternative to an Ethernet network and its required hardware. Best suited to networks with nodes sharing resources or with traffic easily localized. May not help with heavy file transfer or file-server performance. Version SwitchMonitor 1.05 reviewed. $3,495; optional patch panel, $395. Tribe Computer Works, 1195 Park Ave., Ste. 211, Emeryville, CA 94608. 510-547-7800. (Dec '91) ★ '91 Eddy

LRU Systems Nodem ⚡⚡⚡

The Nodem is a SCSI adapter that provides 10BASE-T Ethernet networking capability. Lacks additional ports or diagnostic software. Has link-integrity LED. Can be connected anywhere in a SCSI chain. Version 2.0 reviewed. Version 3.1 shipping. Requires Macintosh SE or later. $495. LRU Systems, Inc., 4 Shratton Ave., San Carlos, CA 94070. 415-594-9697. (Sept '91)

MacProducts Magic EtherNet II/10T ⚡⚡⚡½

This NuBus card provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port. Lacks diagnostic software and link-integrity LED. Doesn't auto-configure. Lifetime warranty. Requires Macintosh II series or higher. $199. MacProducts USA, Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (Sept '91)

MacTOPS ⚡⚡½

MacTOPS is file-server software designed to network Macs to other computer platforms. Slow for large networks but supports communication with DOS-compatibles and UNIX machines. Files and subdirectories are accessed transparently as if they are Mac folders. MacTOPS handles file translation between platforms. Print spooling and InBox E-mail software are bundled. Serialized. Supports AppleTalk, FlashTalk, EtherTalk, and TokenTalk. Unlimited number of simultaneous users. Version reviewed not AFP-compliant. Version 3.0 reviewed. Version 3.1 shipping. Requires Macintosh Plus or later and System 6.03 or later. $299 per node; 3-user pack, $399; 10-user pack, $995; no site license available. Sitka Corp., 950 Marina Village Pkwy., Alameda, CA 94501. 800-445-8677 or 510-769-9669. (June '91) ★ '87 Eddy

Magnalink 3000 CB ⚡⚡⚡⚡

This hardware bridge is fast, offers excellent data compression, and provides comprehensive diagnostics. Provides automatic secondary dial-up. No LocalTalk interface, but allows dial-up asynchronous link and supports synchronous DDS (digital data service), ISDN, and T1 links. Maximum speed is 2.048 Mbps. Interfaces include RS-232, RS-449, V.35, and EtherTalk. $6,950. Magnalink Communications, 63 Nahatan St., Norwood, MA 02062. 617-255-9400. (Jan '92)

Microsoft Mail ⚡⚡⚡⚡½

This E-mail system offers excellent server architecture and performance. Efficient single-instance storage scheme is used for messages (each with unlimited number of enclosed images, text files, or sounds) to multiple addresses. Provides gateways to remote sites and dial-in remote access. Third-party products can also add links to QuickMail, VAX minicomputers, WANs, and MCI Mail. Features include image-display and voice-mail support, plus interapplication communication with Excel and Word. Clean, easily customized, no-frills interface. Simple to install, maintain and use. Can't retrieve previously sent messages. Version 3.0 reviewed. Server and each user require Mac Plus or later with a hard drive and System 6.03 or later. 5 users, $395; 20 users, $1,349; Mail Server software, $395. Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Mar '92) ★ '87 Eddy

MultiPort ⚡⚡⚡⚡½

MultiPort is an external device that gives you six new serial ports and four ADB ports. Plugs in to the Mac's two serial ports and an ADB port. Uses Mac's Communication Toolbox or DA software to manage the extra ports, and LED lights indicate which are active. Although ADB bus standard can address up to 16 devices, Apple discourages use of more than three, so MultiPort's optional power supply is strongly recommended to prevent a blown fuse or toasted ADB circuitry in your Mac. Can create a rat's nest of cabling on your desktop, but offers easy access for switching attached devices. Version 1.0 reviewed. Requires Macintosh SE or later. $169; optional power supply, $39.95. Silicon Valley Bus Co., 475 Brown Rd., San Juan Bautista, CA 95045. 408-623-2330. (July '92)

National Semiconductor EtherNODE•16 NB-T ⚡⚡⚡½

The EtherNODE•16 NB-T is a NuBus card that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port and good diagnostic software. Lacks link-integrity LED. Doesn't auto-configure. Excellent manual. Five-year warranty. Requires Macintosh II series. $399. National Semiconductor, 2900 Semiconductor Dr., P.O. Box 58090, Santa Clara, CA 95052. 800-538-8510 or 408-721-5020. (Sept '91)

National Semiconductor EtherNODE•32 SE/30-T ⚡⚡⚡½

This PDS card provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port and diagnostic software. Lacks link-integrity LED. Doesn't auto-configure, and installer is outdated. Excellent networking tutorial and manual. Five-year warranty. Requires Macintosh SE/30. $449. National Semiconductor, 2900 Semiconductor Dr., P.O. Box 58090, Santa Clara, CA 95052. 800-538-8510 or 408-721-5020. (Sept '91)

NetDistributor Pro ⚡⚡⚡⚡

This software-updating program can create and distribute update packages over a network. Can delete users' files. Good interface uses icon-based scripting. Doesn't support Apple Installer scripts. Doesn't perform network management or collect information about connected Macs. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. For 100 users, $695. Trik, Inc., 400 W. Cummings Park, Ste. 2350, Woburn, MA 01801. 800-466-8745 or 617-933-8810. (Dec '92)

NetMinder Ethernet ⚡⚡⚡⚡

This network-protocol-analyzer software has a clean intuitive interface and good online help. Can't simulate network traffic for analysis and lacks cut-and-paste function. Features include use of OSI-like filters, triggers, and threshold alarms. Supports AppleTalk, TCP/IP, NetWare, XNS, DECnet, and Bridge/3Com protocols. Has remote-capture utility. Lacks built-in pager support. Version 2.1 reviewed. Requires 2 MB of RAM, System 6.03 or later, and Ethernet interface. $595. Neon Software, Inc., 1009 Oak Hill Rd., Ste. 203, Lafayette, CA 94549. 510-283-9771. (Sept '92)

NetMinder LocalTalk ⚡⚡⚡⚡

This network-protocol-analyzer software has a clean, intuitive interface and excellent on-line help. Can't simulate network traffic for analysis and doesn't support SNMP. Features include use of OSI-like

MICE RATINGS ⚡ ⚡½ ⚡⚡ ⚡⚡½ ⚡⚡⚡ ⚡⚡⚡½ ⚡⚡⚡⚡ ⚡⚡⚡⚡½ ⚡⚡⚡⚡⚡

filters, triggers, and threshold alarms. Supports only AppleTalk protocols. Has remote-capture utility. Lacks built-in pager support and cut-and-paste function. Version 1.1 reviewed. Requires System 6.03 or later and 2 MB of RAM. $395. Neon Software, Inc., 1009 Oak Hill Rd., Ste. 203, Lafayette, CA 94549. 510-283-9771. (Sept '92)

NetOctopus ⭐⭐⭐½

This network-management software quickly collects detailed information about connected Macs. Sacrifices user control in favor of administrator control. Doesn't scan configuration of DOS-compatible PCs on the network. Can't draw network diagram. Includes internal database manager. Provides several levels of multiple-administrator security. Can distribute update files or folders and can delete or rename users' files. Version 1.1 reviewed. Requires Macintosh II series or higher with 4 MB of RAM, System 6.03 or later, and a hard drive. $645 to $4,770. MacVONK, Inc., 940 Sixth Ave. S.W., Ste. 1100, Calgary, Alberta T2P 3T1 Canada. 403-232-6545. (Dec '92)

NetWare for Macintosh ⭐⭐⭐⭐½

NetWare for Macintosh lets Macs on LocalTalk or Ethernet networks connect to a NetWare file server, using AppleShare client software. Difficult PC-based setup and administration, but offers extremely fast performance and provides connectivity to DOS, OS/2, Windows, and UNIX system platforms. Expensive and not recommended for small Mac-only networks, but excellent for Mac users needing access to non-AppleTalk PC networks already attached to NetWare servers. Can handle a maximum of 100 simultaneous Mac clients (out of 250 clients). Powerful data-security features. Version 3.0 reviewed. Version 3.11 shipping. Requires 80386- or 80486-based PC for server, plus another PC for administration, and NetWare 3.11 file-server software. 20 users, $895; 100 users, $1,995; NetWare 3.11, $3,495 for 20 users, $6,995 for 100 users. Novell, Inc., 122 E. 1700 S., Provo, UT 84606. 800-453-1267 or 801-429-7000. (Nov '91) ★ '88, '91 Eddy

Network Resources Mac1000TP ⭐⭐⭐

The Mac 1000TP is a NuBus card that provides 10BASE-T Ethernet networking capability. Lacks additional ports or diagnostic software. Includes link-integrity LED. Three-year warranty. Version 2.3 Installer software shipping. Requires Macintosh II series or higher. $295. Network Resources Corp. (NRC), 736 S. Hill View Dr., Milpitas, CA 95035. 408-263-8100. (Sept '91)

Network SuperVisor ⭐⭐⭐⭐

This network-management software collects detailed information about connected Macs. Well-integrated features. Creates editable network maps and statistical graphs. Can alert administrator to special network conditions. Has beefy, extensible internal database manager with sophisticated analytical capabilities. Supports several password types. Software-updating capability limited to sending files. Can't scan configuration of DOS-compatible PCs on the network but can see CD-ROM drives. Version 2.1 reviewed. Requires Macintosh II series or higher with 4 MB of RAM, System 6.03 or later, and a hard drive. $495 to $1,295. CSG Technologies, 530 William Penn Pl., Ste. 329, Pittsburgh, PA 15219. 800-366-4622 or 412-471-7170. (Dec '92)

NRC MultiGate Hub ⭐⭐⭐⭐

This managed 10BASE-T hub includes twenty-four 10-BASE-T ports plus an AUI port and BNC ports. Offers bridging capability and is rack-mountable. Fiber-optic ports are optional. No RJ-45 option. Pre-10BASE-T-compatible and upgradable. Has auto-polarity adjustment and LEDs to monitor link status. Power supply is internal. Included MultiGate Manager software offers GUI, password protection, in- and out-of-band management, auto-partitioning, and per-port statistics. Unlimited management-bus length with dial-up. Three-year warranty. Version 3.1 (software) reviewed. $3,495. Network Resources Corp. (NRC), 736 S. Hill View Dr., Milpitas, CA 95035. 408-263-8100. (Oct '92)

Oracle for Macintosh ⭐⭐⭐⭐

Oracle for Macintosh is more a development tool kit than an end-user product. It allows the creation of powerful front-end Mac applications that can access Oracle databases on mainframes and minicomputers. Includes HyperCard XCMDs. Version 1.1 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard disk with 5 MB of available space. NetWork-Station version requires SequelNet for Macintosh ($299). Single-user version, $299; NetWorkStation version, $299; database version, $699. Oracle Corp., 500 Oracle Pkwy., Redwood Shores, CA 94065. 800-345-3267 or 415-506-7000. (June '89)

PacerForum ⭐⭐⭐½

PacerForum is a graphical-bulletin-board groupware system for your Mac local-area network (LAN). For large, spread-out, networked organizations, provides a convenient way to exchange ideas, files, graphics, and voice messages. Easy for novices to use. Text-formatting options are limited. Flexible bulletin-board interface supports pop-up menus and flashing icons to alert you to new messages. Server software is easy to install but lacks automatic server-to-server communication. Server administration, although painless, involves lots of manual configuration. Networks with several forum servers can select among them, using the Chooser. Version 1.0 reviewed. Requires Macintosh Plus or later with 2 MB of RAM, System 6.04 or later, and a hard drive. 5-user pack, $549; 25-user pack, $1,995. Pacer Software, Inc., 7911 Herschel Ave., Ste. 402, La Jolla, CA 92037. 619-454-0565. (June '92)

PacerShare ⭐⭐⭐½

A VAX file server for networked Macs, PacerShare is very fast and reliable. Extra functionality comes at a high price. Maximum number of simultaneous users is 500. Supports Ethernet but not LocalTalk. Requires VAX. 10 users, $2,250 direct; 20 users, $3,750. Pacer Software, Inc., 7911 Herschel Ave., Ste. 402, La Jolla, CA 92037. 619-454-0565. (June '91)

Pathworks for Macintosh ⭐⭐⭐

Pathworks, a file server for networked Macs, provides self-installing, extensive VAX connectivity. Slow for AFP file sharing, and it crashed when 20 clients were connected (in our tests), although the number of simultaneous users is theoretically unlimited. Bundled with Mail for Macintosh, MacTerminal 3.0, and MacX. Supports Ethernet but not LocalTalk. Can't be administered from a Macintosh. Version 1.0 reviewed. Requires VAX. Client license, $308; media and documentation, $493. Digital Equipment Corp., 146 Main St., Maynard, MA 01754. 800-344-4825 or 508-486-5198. (June '91)

pcMACTERM II ⭐⭐⭐⭐

pcMACTERM II lets your Mac take control of a DOS machine from the Mac keyboard. Allows DOS files to be printed through the Mac. Version 1.1 reviewed. Version 3.11c shipping. Requires Macintosh Plus or later (with System 6.03 or later and printer), and IBM PC or later with DOS 2.0 or later and minimum of 256K RAM. $179 for pcMACTERM II; $395 for pcMACTERM/Network. Dynamic Microprocessor Associates (DMA), 1776 E. Jericho Turnpike, Huntington, NY 11743. 516-462-0440. (Jan '89)

PhoneNET Connector Series 300 ⭐⭐⭐⭐⭐

PhoneNET is an AppleTalk-compatible network that can extend up to 3,000 feet. Unused preinstalled phone cabling can be used for the network. $59.95 per node; 10-user pack, $395; 50-user pack,

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

$1,595. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Dec '86) ★ '87 Eddy

PhoneNET Liaison ⭐⭐⭐

This software-only WAN (wide area network) router has a consistent response and can double as a local router. Slower than a hardware router (speed is limited by modem). Easy installation plus dial-up and leased-voice-line capabilities. Can create a large internet with EtherTalk and TokenTalk, using third-party cards. Offers support for AppleTalk Phase 2, mixed Phase 1 and Phase 2, and token-ring networks. Cabling can be thick coaxial, thin coaxial, or twisted-pair. Excellent technical support. Worth considering if you already have a dedicated AppleShare server or local as well as remote routers. Version 3.01 reviewed. Version 3.03 shipping. Requires Macintosh Plus or later. $395. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Jan '92) ★ '88 Eddy

Pivotal ModularHub ⭐⭐

This nonmanaged 10BASE-T hub is upgradable and includes twelve 10BASE-T ports, BNC and AUI ports, and a hierarchical port. A 13th UTP port is optional. Has auto-polarity adjustment. LEDs for monitoring collision and link status are unreliable. Power supply is external. Uninformative documentation. Two-year warranty. Toll-free tech support. $900. Pivotal Technologies, Inc., 100 W. Rincon Ave., Campbell, CA 95008. 800-445-4628 or 408-374-7887. (Oct '92)

Print Central ⭐⭐⭐

This print-server software offers a good feature set but a poor interface. Can handle up to six printers and eight print queues. Allows print jobs to be redirected and can send printer setup files. Version 2.0 reviewed. Requires a dedicated 68030 CPU or higher, 2 MB of RAM, System 6.03 or later, and a large, fast hard drive. $795. Compumation, Inc., Business and Technology Ctr., 820 N. University Dr., State College, PA 16803. 800-776-6537 or 814-238-2120. (Oct '92)

PServe ⭐⭐⭐½

This print-server software offers a good feature set but is slow, especially with heavy print traffic. Can handle as many as 8 printers and 16 print queues. Allows print jobs to be redirected and can send printer setup files. Doesn't support non-PostScript printing languages common among PCs, which diminishes utility as a cross-platform product. Version 3.0 reviewed. Requires a dedicated 286 PC or later with 512K of RAM, DOS 3.1 or later, and a large, fast hard drive. $1,095. COPS (CoOperative Printing Solutions), Inc., 5950 Live Oak Pkwy., Ste. 175, Norcross, GA 30093. 404-840-0810. (Oct '92)

QuickMail ⭐⭐⭐⭐½

QuickMail is an E-mail package with lots of superior features. Macintoshes and PCs can be used as clients. New simplified addressing scheme boosts performance in a busy environment and saves disk space on server. Supports voice-mail and real-time conferencing. Has powerful user tools and customizable message forms. Highly configurable by network manager, but slightly temperamental on large, heavily used networks. The maximum number of file enclosures is 16, and the maximum number of users per server is 3,200. Version 2.5 reviewed. Version 2.51 shipping. Requires Macintosh Plus or later with System 6.05 or later; server requires Macintosh SE or higher, 2 MB of available RAM, and a hard drive. 5 users, $399; 10 users, $599; 50 users, $2,499; 100 users, $4,699. CE Software, Inc., 1801 Industrial Cir., P.O. Box 65580, West Des Moines, IA 50265. 800-523-7638 or 515-224-1995. (Mar '92)

QuickShare ⭐⭐⭐½

QuickShare connects your Mac to a PC via SCSI, enabling the Mac to access files on a PC or a PC network. File-transfer software provides generic text and graphics translations. Version 2.0 reviewed. Requires DOS 3.0 or later. $995. SeeColor Corp., 34004 16th Ave. S., Federal Way, WA 98003. 206-874-9080. (Oct '89)

Racal InterLan MacConnect EN ⭐⭐⭐⭐½

This Ethernet interface card is fast. Lacks diagnostic software. Requires NuBus-capable Mac. $495. Racal InterLan, 155 Swanson Rd., Boxborough, MA 01719. 800-526-8255 or 508-263-9929. (June '90)

Racal InterLan MacConnect NIA310-10BT ⭐⭐⭐½

This NuBus card provides 10-BASE-T Ethernet networking capability. Lacks additional ports. Includes diagnostic software and link-integrity LED. Lifetime warranty. Requires Macintosh II series. $495. Racal InterLan, 155 Swanson Rd., Boxborough, MA 01719. 800-526-8255 or 508-263-9929. (Sept '91)

Radar ⭐⭐⭐½

This moderately priced network-management software collects detailed information about connected Macs. Scans at boot-up. Offers rapid performance and good interface. Has built-in printer utility but no internal database manager. Scans for DOS-compatible PCs on the network and can see CD-ROM drives. Software-updater feature supports Apple Installer scripts. Can draw network maps and alert administrator to special network conditions. Version 2.0 reviewed. Requires Macintosh II series or higher with 4 MB of RAM, System 6.03 or later, and a hard drive. $399. Sonic Systems, Inc., 333 W. El Camino, Ste. 280, Sunnyvale, CA 94087. 408-736-1900. (Dec '92)

Send Express ⭐⭐⭐⭐

Send Express is a DA/INIT combination that sends files or Clipboard contents in the background, with or without MultiFinder. The background operation is extremely smooth, which compensates for sluggish performance. User interface is too complex for those who need to transfer files frequently. Version 1.0 reviewed. Version 2.1c shipping. Requires Macintosh Plus or later and System 6.03 or later. 3 users, $79; unlimited users per zone, $179. Gizmo Technologies, P.O. Box 14177, Fremont, CA 94539. 510-623-7899. (Sept '90)

SequeLink ⭐⭐⭐⭐

An API (application-programming interface), SequeLink provides a faster alternative to Apple's DAL but is difficult to use. Server operating systems supported include VAX/VMS and SCO UNIX/XENIX. Supported database-management systems include Ingres, Oracle, Rdb/VMS, Sybase, and Interbase. Client operating systems supported include the Mac OS, Windows 3.0, and OS/2. Per user, $295. TechGnosis, Inc., 301 Yamato Rd., Ste. 2200, Boca Raton, FL 33431. 407-997-6687. (Jan '91)

Shiva/Eagle Hublet ⭐⭐⭐

This compact, nonmanaged 10BASE-T hub is moderately priced. Includes four 10-BASE-T ports and a hierarchical port. Lacks BNC and AUI ports. Has only two LEDs, neither of which indicate link status. Power supply is external. Uninformative documentation. Five-year warranty. $299. Eagle Technology Corp., 1160 Ridder Park Dr., San Jose, CA 95131. 800-733-2453 or 408-441-7453. (Oct '92)

Shiva EtherGate ⭐⭐⭐½

This router is a hardware/software combination that includes an Ethernet interface. Has incomplete RS-232 interface in synchronous mode, and has no automatic backup link. Can double as a local router. Besides LocalTalk and dial-up asynchronous links, supports synchronous DDS (digital data service), ISDN, and T1 links. Maximum speed is 64 Kbps. Inadequate documentation. Has no auto-connect or auto-reconnect. Operates using included InterNet Manager application or control panel. $1,899. Shiva Corp., One Cambridge Center, Cambridge, MA 02142. 800-458-3550 or 617-252-6300. (Jan '92)

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Shiva EtherPort II ⭐⭐½
This Ethernet NuBus card is very slow. Lacks diagnostic software. Requires NuBus-capable Mac. $299. Shiva Corp., One Cambridge Center, Cambridge, MA 02142. 800-458-3550 or 617-252-6300. (June '90)

Shiva EtherPort IIT ⭐⭐⭐½
Shiva's EtherPort IIT is a NuBus card that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port, diagnostic software, and link-integrity LED. Doesn't auto-configure. Requires Macintosh II series. $299. Shiva Corp., One Cambridge Center, Cambridge, MA 02142. 800-458-3550 or 617-252-6300. (Sept '91)

Shiva EtherPort SE ⭐⭐½
This Ethernet interface has average performance but is erratic using AppleTalk Phase 2 driver as a client. Requires Macintosh SE. $299. Shiva Corp., One Cambridge Center, Cambridge, MA 02142. 800-458-3550 or 617-252-6300. (June '90)

Shiva EtherPort SE/30 ⭐⭐⭐
This Ethernet networking device delivers average performance. Lacks diagnostic software. Requires Macintosh SE/30. $299. Shiva Corp., One Cambridge Center, Cambridge, MA 02142. 800-458-3550 or 617-252-6300. (June '90)

Shiva FastPath ⭐⭐⭐
This hardware EtherTalk/LocalTalk router supports DECnet. Current software is K-Star 8.0.1. Router code is in nonvolatile RAM, and CPU is a Motorola 68000. Can handle no more than one LocalTalk and one EtherTalk network. Offers support for TCP/IP, AppleTalk Phase 2, or mixed Phase 1 and Phase 2, but only one LocalTalk port is provided. Unlimited free technical support. Version 4 reviewed. Version 5 shipping. $2,799. Shiva Corp., One Cambridge Center, Cambridge, MA 02142. 800-458-3550 or 617-252-6300. (Apr '91)

Shiva TeleBridge ⭐⭐⭐⭐
This WAN router is a standalone hardware device that's faster than a software-only solution, although speed is still limited by the modem linked (via TeleBridge) to a LocalTalk network. Easy installation plus dial-up and leased-voice-line capabilities. Does not offer auto-connect capability. Operates using included InterNet Manager application program or control panel. No EtherTalk interface. $599. Shiva Corp., One Cambridge Center, Cambridge, MA 02142. 800-458-3550 or 617-252-6300. (Jan '92)

SoftPC - Entry Level ⭐⭐⭐½
SoftPC puts an IBM PC XT inside your Mac without making you crack the case to add any special coprocessor boards. The emulation of the DOS machine is done entirely in the software. Version 1.3 reviewed. Version 2.5 shipping. Requires Macintosh SE (with 68020 accelerator card), SE/30 or II series with 2 MB of RAM and a hard drive. $199.95. Insignia Solutions, 526 Clyde Ave., Mountain View, CA 94043. 415-694-7600. (Nov '88)

Sonic Systems Ether TwP/II ⭐⭐⭐⭐
The Ether TwP/II is a NuBus card that provides 10BASE-T Ethernet networking capability. Includes thicknet AUI port and diagnostic software. Lacks link-integrity LED. Doesn't auto-configure. Requires Macintosh II series. $199. Sonic Systems, Inc., 333 W. El Camino, Ste. 280, Sunnyvale, CA 94087. 408-736-1900. (Sept '91)

Sonic Systems Ether TwP/LC ⭐⭐⭐⭐½
The Ether TwP/LC is a PDS card that provides 10BASE-T Ethernet networking capability. Lacks additional ports or link-integrity LED. Provides diagnostic software. FPU socket on board. Requires Macintosh LC. $199. Sonic Systems, Inc., 333 W. El Camino, Ste. 280, Sunnyvale, CA 94087. 408-736-1900. (Sept '91)

Sonic Systems Ether TwP/SE ⭐⭐⭐⭐
Ether TwP/SE is a PDS card that provides 10BASE-T Ethernet networking capability. Lacks additional ports or link-integrity LED. Provides diagnostic software. Compatible with the Mac IIsi. Requires Macintosh SE/30 or IIsi. $199. Sonic Systems, Inc., 333 W. El Camino, Ste. 280, Sunnyvale, CA 94087. 408-736-1900. (Sept '91)

SQL*Net for Macintosh ⭐⭐⭐⭐½
Easy to use and fast, SQL*Net is an API (application-programming interface) for client/server database access. Server operating systems include IBM MVS and VM as well as VAX/VMS, UNIX, and OS/2. Intended for use with Oracle databases, but offers support for DB2, SQL/DS, and RMA by means of an SQL*Connect gateway. SQL*Net handles most networking protocols and client operating systems. Version 1.2 shipping. $299 per user; Oracle database for Mac, $699; servers, $920 to $13,000. Oracle Corp., 500 Oracle Pkwy., Redwood Shores, CA 94065. 800-345-3267 or 415-506-7000. (Jan '91)

StarGROUP Server for Macintosh ⭐⭐⭐½
StarGROUP Server, a file server for networked Macs, provides file sharing for Mac, DOS, and UNIX clients. Slow for AFP file sharing and cannot administer from a Mac. Maximum number of simultaneous users is 120. Requires 80386-based PC and StarGROUP LAN Manager Server software. 8 users, $795; unlimited users, $1,295. AT&T Network Systems, 475 South St., Morristown, NJ 07962. 800-344-0223 or 201-606-2000. (June '91)

Status*Mac ⭐⭐⭐⭐
Status*Mac is network-management software that collects detailed information about networked Macs. Generates statistical graphs. Offers thorough, rapid performance and good interface, plus flexible scan scheduling. Has internal database manager. Supports password protection. Can't scan configuration of DOS-compatible PCs on the network. Can create and distribute update packages and can replace users' files. Version 3.0 reviewed. Network administrator requires Macintosh Plus or later, 2.5 MB of RAM, System 6.04 or later, and a hard drive. $749 to $2,699. ON Technology, Inc., 155 Second St., Cambridge, MA 02141. 617-876-0900. (Dec '92)

SunTOPS ⭐⭐⭐
SunTOPS is file-server software designed to network Sun SPARCstations with Macs using MacTOPS, and with DOS machines using DosTOPS. Slow for large networks. Supports Ethernet/EtherTalk but not LocalTalk. Can handle an unlimited number of simultaneous users. Version 2.5 reviewed. Version 3.0 shipping. Requires Sun O.I.S. 4.0 or 4.1 and SPARCstation 1 or Sun 4. On floppy, $1,295; on tape, $1,395. Sitka Corp., 950 Marina Village Pkwy., Alameda, CA 94501. 800-445-8677 or 510-769-9669. (June '91)

TalkManage ⭐⭐⭐
TalkManage includes TalkStat and TalkSpy, which together provide a basic network-administration tool for LocalTalk networks. Doesn't support EtherTalk and can't create simulated network traffic for analysis. Poor manual doesn't help you deal with confusing interface. No support for filters, but allows five chart types and some error management. Has awkward copy-protection scheme. Version 1.6 reviewed. Version 1.63 shipping. Requires 68020 CPU or higher and System 6.05 or later. 100-user license, $695 direct; site license, $895. Distributed Technologies Corp., 275 Wyman St., Waltham, MA 02154. 617-684-0060. (Feb '92)

TalkSpy ⭐⭐⭐
TalkSpy is a basic network-administration tool for LocalTalk networks. Bundled with TalkStat network-performance analyzer. Doesn't support EtherTalk and can't simulate network traffic for analysis. Allows five chart types and some error management. Poor manual doesn't help you deal with confusing interface. Lacks built-in support for pagers, filters, or remote capture. Version 1.61 reviewed.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Requires 68000 CPU or higher and System 6.05 or later. $395 direct. Distributed Technologies Corp., 275 Wyman St., Waltham, MA 02154. 617-684-0060. (Sept '92)

TechWorks HubWorks-8 ⭐⭐⭐⭐

This nonmanaged 10BASE-T hub is moderately priced. It includes eight 10BASE-T ports and a hierarchical port. Included BNC and AUI ports cannot be used simultaneously. Substandard case. Pre-10BASE-T-compatible. Has auto-polarity adjustment and LEDs to monitor collision and link status. Power supply is external. Informative documentation. Lifetime warranty. $399. Technology Works, Inc. (TechWorks), 4030 Braker Lane W., Ste. 350, Austin, TX 78759. 800-926-3148 or 512-794-8533. (Oct '92)

TechWorks NuBus 10T/Thin/AAUI Ethernet card ⭐⭐⭐⭐

This NuBus card provides 10BASE-T Ethernet networking capability. Includes BNC and AAUI ports. Lacks diagnostic software and link-integrity LED. Doesn't autoconfigure. Lifetime warranty. Requires Macintosh II series. $429. Technology Works, Inc. (TechWorks), 4030 Braker Lane W., Ste. 350, Austin, TX 78759. 800-926-3148 or 512-794-8533. (Sept '91)

Timbuktu ⭐⭐⭐⭐

Timbuktu is a color-capable screen-sharing program that lets you access networked Macs for technical support, training, or file management. Allows your computer to be both host and guest, or to hook up to multiple hosts simultaneously. Provides the security feature of assigning different "classes" of users. Allows file transfer between Macs. A cluttered dialog box is used to establish guest privileges. Supports only network connections, not modem connections. Version 4.01 reviewed. Requires Macintosh Plus or later, System 6.05 or later, Hayes-compatible modem, and 2 MB of RAM for 24-bit-color support. Per node, $195; quantity discounts available. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Dec '91) ★ '90 Eddy

TrafficWatch II ⭐⭐⭐⭐

TrafficWatch II is a network-administration tool that supports either LocalTalk or EtherTalk. Can create simulated network traffic for analysis and has intuitive interface. Supports filters, seven types of charts, and some error management. Supports AppleTalk Phase 2. Version 1.0 reviewed. Version 1.0A shipping. $695. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Feb '92)

WordPerfect Office ⭐⭐⭐⭐

This powerful office-automation package includes a networked group Calendar, Forms Maker, File Manager, and Mail system. Compatible with PC version. This multiuser program has ambitious scope, but its interface needs minor tweaking. The group-scheduling and workgroup-computing features are real benefits. User-customizable features are extensive. Forms Maker tool creates color message templates with useful options. Includes spelling checker. Allows 99 file enclosures per message, and can support a maximum of 100 users per server. Messages sorted by date only. No remote dial-up utility. Server performance is good, but undeliverable messages waste disk space and remain undetected. Version 3.0 reviewed. Version 3.03 shipping. Requires Macintosh Plus or higher, System 6.05 or later, a hard drive, and an AppleTalk network. $149; 5 users, $495; 20 users, $1,495. WordPerfect Corp., 1555 N. Technology Way, Orem, UT 84057. 800-451-5151 or 801-225-5000. (July '92)

Organizational Tools

Acta 7 ⭐⭐⭐½

Acta 7 is an outliner application. Also comes with the Acta DA. Smart Paste lets you paste material from other applications into Acta outline format. Includes drivers for translating Acta outlines into MORE and ThinkTank and into MacWrite, WriteNow, Works, and RTF files. Version 1.0 reviewed. Version 1.03 shipping. Requires Macintosh Plus or later. $149. Symmetry Software Corp., 8603 E. Royal Palm Rd., Ste. 110, Scottsdale, AZ 85258. 800-624-2485 or 602-998-9106. (Aug '89) ★ '89 Eddy

Aspects ⭐⭐⭐⭐

Aspects was the first real groupware product for the Mac. As with multiuser databases, Aspects provides several users with simultaneous access to multiple documents (limited by available RAM). Word-processing, drawing, and painting modes are provided, but there's no database or spreadsheet modes, outliner, or color support. Operates on LocalTalk, Ethernet, or token-ring networks via AppleTalk or can use 2,400-bps modems. Version 1.0 reviewed. Version 1.02 shipping. Requires Macintosh Plus or later; hard drive recommended. $299; 5 users, $895; 10 users, $1,295; 100 users, $7,995. Group Technologies, Inc., 1408 N. Fillmore St., Ste. 10, Arlington, VA 22201. 800-476-8781 or 703-528-1555. (June '91) ★ '90 Eddy

BeagleWorks ⭐⭐⭐½

This integrated-software package combines word processing, spreadsheet, database, telecommunications, drawing, and painting features. Top-notch word-processing and spreadsheet modules. Lackluster and inflexible database module. Weak drawing and painting tools. Modules interact primarily by using System 7's publish-and-subscribe features. Can access data from separate documents. Still has a few bugs and problems with low-memory situations. Version 1.01 reviewed. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $299.95. Beagle Bros., 6215 Ferris Sq., Ste. 100, San Diego, CA 92121. 619-452-5500. (Oct '92)

ClarisWorks ⭐⭐⭐⭐½

ClarisWorks is a superbly designed integrated-software package with a clean, accessible interface. Includes application modules that handle word processing, graphics, database management, spreadsheets (with charting), and basic telecommunications. Has rudimentary macro capability to automate repetitive actions. Uses MacDraw-like graphic-frame metaphor to link data from different modules. Each module offers adequate functionality, but their level of integration makes ClarisWorks a winner. No direct file compatibility with Resolve or FileMaker Pro. A perfect addition to a PowerBook. Version 1.0 reviewed. Requires Macintosh Plus or later, 2 MB of RAM, and a hard drive. $299. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (June '92 and Dec '92) ★ '91 Eddy

Client ⭐⭐⭐

Client is an affordable, highly customizable contact manager in the form of a HyperCard stack. Great for salespeople on a budget, especially if they or colleagues are willing to learn a little HyperCard programming. Handles a wealth of detail about each contact. Nice interface. Doesn't have automatic in-box function to display a day's scheduled activities. No built-in mail-merge. Importing and exporting data is easy but requires extra editing with word-processing program. Has small but functional set of preset reports and mailing-label formats. Manual is poorly organized and depends on access to HyperCard documentation. Version 2.0 reviewed. Requires HyperCard 2.0 or later. $195. Trendware Corp., P.O. Box 2285, Huntington, CT 06484. 203-926-1116. (Feb '92)

Colleague 2 ⭐⭐⭐⭐½

Colleague 2 is a slick, attractive, multiuser contact manager that's perfectly suited for creative professionals in graphic design, commercial photography, and advertising. Includes a run-time version of 4th Dimension. Maintains Job Tickets to track time billing, expenses, and invoicing.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Takes comprehensive approach to prospecting and maintaining clients. Handles checking accounts. Excellent mail-merge functions. Ideal for small organizations needing well-rounded business-management system with strong basic-accounting features. Lacks strategic-planning capability and automated follow-up. Version 2.92 reviewed. Version 3.0 shipping. Requires Macintosh Plus or higher with 2.5 MB of RAM and a hard drive. $495; each additional user, $175. Colleague Business Software, Inc., 10000 Research Blvd., Ste. 210, Austin, TX 78759. 800-926-9965 or 512-345-9964. (Feb '92)

ConstructionMac ⭐⭐½

Here's a program for those do-it-yourselfers (or small contractors) who are about to embark on home-improvement projects. ConstructionMac helps you set up a budget and schedule, keep track of costs (both estimates and actuals), figure out what materials you require, calculate surface areas (and how much paint or wallpaper you'll need), and so on. Just make sure you have plenty of room on your hard disk — the database takes up a lot of hard-disk real estate. $99. Revelar, 772 E. 3300 South, Ste. 210, Salt Lake City, UT 84106. 801-485-3291. (Dec '92)

Contact Ease ⭐⭐⭐⭐½

This contact manager has a deceptively simple interface and handles automated contact-management well. Sophisticated and fast. Design concentrates on Activity, Address, Custom, and Plan tab cards that store permanent data, and then track the progress of sales projects. Built-in word processor works well with mail-merge feature. Can generate customized telemarketing Scripts and reports. Can't display selected records in list format. Built on the Omnis 5 database-management program. No color support, and can't change envelope font. Version 1.22 reviewed. Version 2.0 shipping. Requires Macintosh Plus or higher, 2 MB of RAM, and a hard drive. $395; 5-user pack, $1,495. WestWare, Inc., 10148 Diamond Head Ct., Spring Valley, CA 91977. 800-869-0871 or 619-660-0356. (Feb '92)

Control Classic ⭐⭐⭐⭐½

This contact manager, based on 4th Dimension, is a simplified version of Control II, a heavy-duty system for sales-lead tracking, order entry, and invoicing. Control Classic instead concentrates on lead tracking and provides a clean interface, good automated planning, and a nice balance of word processing and mail-merge features. Some program functions require unnecessary steps. Good analysis of promotional expenses and their degree of success. Can display records in list format. Formulas feature lets you alter groups of records according to user-defined criteria. Supports custom labels, graphing, and reports. Has complex, poorly organized documentation. Version 1.1 reviewed. Version 1.5 shipping. Requires Macintosh Plus or higher with 4 MB of RAM, System 6.05 or later, and a hard drive. $425; $99 per additional user. Diamante Software, 14330 Midway Rd., Ste. 119, Dallas, TX 75244. 800-223-2165 or 214-661-3857. (Feb '92)

Desk ⭐⭐⭐½

Desk is a collection of seven powerful DAs: DeskPaint, DeskDraw, DeskWrite, DeskSecretary (appointment calendar), DeskCom (modem control), DeskCalc, and DeskFile (minidatabase). Although not on a par with Microsoft Works, Desk lets you access its DAs from within any application. Version 1.0 reviewed. Version 3.07 shipping. Requires Macintosh Plus or later; DeskPaint requires a color display system, 2 MB of RAM, and a hard drive. $399.95. Zedcor, 4500 E. Speedway, Ste. 22, Tucson, AZ 85712. 800-482-4567 or 602-881-8101. (Jan '91)

DiagramMaker ⭐⭐⭐½

DiagramMaker is a multipurpose object-linking program. Forms a network of custom-designed objects with connecting points at the centers, corners, or centers of sides. Customizes organization charts from text outlines. Lines join on contact and can be pulled into arcs. Objects can be linked to objects in other documents. No automatic right-angle line maintenance. Useful text-find feature. Version 1.1 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later and System 6.03 or later. $295. Action Software, 1507 E. Franklin St., Ste. 122, Chapel Hill, NC 27514. 800-826-0550. (Jan '90)

Fair Witness ⭐⭐⭐⭐

Fair Witness offers a combination of outliner, database-manager, and spreadsheet features. Provides tools for capturing, organizing, and completing project ideas. No network/CPM support. Clever HyperCard-like features for navigating project plan documents. Supports wide range of data types. Allows thorough customization of graphics and typography. Includes complex but well-written documentation and a helpful videotape. Version 1.2 reviewed. Requires System 6.03 or later and a hard drive. $295. Chena Software, Inc., 905 Harrison St., Allentown, PA 18103. 215-770-1210. (Oct '92) ★ '91 Eddy

GreatWorks ⭐⭐⭐⭐

This affordable package includes several applications: a good word processor, an outliner, two graphics modules, telecommunications software, a database program, and a spreadsheet program with charting. Although the separate modules work well and are easily navigated, the level of automatic integration among them is almost nonexistent unless you employ System 7's publish-and-subscribe feature. Does well with minimal RAM. Easy to use and adequate for simple office needs. Version 2.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later; hard drive recommended. $299. Symantec Corp., 10201 Torre Ave., Cupertino, CA 95014. 800-441-7234 or 408-253-9600. (June '92)

HandiWorks ⭐⭐

HandiWorks is a simple but frustrating integrated-software package. Awkward interface. Feature set is limited, concentrating on basic page-layout functions. Has no separate modules for different data types, instead using a single document type and movable frames to arrange blocks of text, graphics, and spreadsheet numbers. Has no database module but is bundled with Address Manager DA, which is partially integrated with spreadsheet frames. Painfully obtuse mail-merge function. Version 1.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $175. MacVONK, Inc., 940 Sixth Ave. S.W., Ste. 1100, Calgary, Alberta T2P 3T1 Canada. 403-232-6545. (June '92)

IdeaFisher ⭐⭐⭐½

IdeaFisher is a thought processor that's based on an eight-disk, 7-MB database of words, phrases, clichés, and titles. Cross-referenced and indexed in several ways for basic brainstorming. Useful search techniques. Conclusions are held in separate file. Has a fairly quick, unattractive, text-based interface. Unsophisticated filters. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and a hard drive. $595. Fisher Idea Systems, Inc., 2222 Martin St., Ste 110, Irvine, CA 92715. 800-289-4332 or 714-474-8111. (May '90)

Inspiration ⭐⭐⭐½

Inspiration is a useful and flexible idea processor. Allows creative, unstructured brainstorming with many options for project planning, organization charts, flow charts, simple word processing, and even storyboarding for video and film. Includes basic drawing tools and spelling checker. Printed output is adequate but not elegant. Latest version is compatible with System 7.0 and supports color and large-screen monitors. Version 2.02 reviewed. Version 3.01 shipping. Requires Macintosh Plus or later and System 4.2 or later. $295. Ceres Software, Inc., 2920 S.W. Dolph Ct., Ste #3, Portland, OR 97219. 800-877-4292 or 503-245-9011. (June '90)

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Market Master ⮚⮚⮚½
Market Master is a contact manager, based on Double Helix, that takes a highly automated approach to developing sales. Handles contacts with a highly customizable if/then multiple-choice system that's time-consuming to implement but totally streamlines interaction with contacts. Manages form letters, envelopes, and labels, but has weak mail-merge capability. Form letters cannot include contents of fields. Includes wide variety of preset reports for data and summaries. Has no custom-report generator. Auto-dial feature can't bypass local area code or set outside-line access. Except for single-user version, includes Market Master Manager, which lets supervisors analyze sales contacts and follow-ups in detail. Version 3.0 reviewed. Version 3.5 shipping. Requires Macintosh Plus or higher with 2 MB of RAM, System 6.03 or later, and a hard drive. $395; 4 users, $595; multiuser add-on, $495. Breakthrough Productions, 210 Park Ave., Nevada City, CA 95959. 916-265-0911. (Feb '92)

Microsoft Office CD-ROM ⮚⮚⮚⮚
The Microsoft Office is Word, Excel, Mail, and PowerPoint on a CD-ROM (a floppy version is also available). Includes a full set of Adobe screen fonts, a copy of DocuComp, Excel templates, lots of clip-art samples, and other Microsoft applications. A HyperCard stack controls everything. Comprehensive on-line HyperCard documentation. Version 1.0 reviewed. Version 1.5, floppy version 2.0 shipping. Requires Macintosh Plus or later with 2 MB of RAM, a hard drive, and HyperCard 2.0v2 or later. $849; floppy version, $750. Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Apr '90)

MindLink ⮚⮚⮚
MindLink is a HyperCard-based idea processor. It leads you through a structured procedure that helps you find answers by prompting you with questions. Useful, but performance can be frustrating. Includes HyperCard. Version 1.0 reviewed. Version 2.2 shipping. Requires Macintosh Plus or later and a hard drive. $299; educational site licenses available. MindLink, Inc., P.O. Box 247, North Pomfret, VT 05053. 800-253-1844 or 802-457-2025. (May '90)

Org Plus for Macintosh ⮚⮚⮚⮚
Org Plus creates hierarchical organization charts quickly, intuitively, and with a surprising variety of styles and formats. Nearly all the graphics drudgery required in chart making is automated by this easy-to-use program. Banner Blue publishes the best-selling DOS org-chart program. Don't assume that this Mac version is simply a PC port. Org Plus is a top-quality Mac program that can exchange files with its DOS counterpart. Version 1.0 reviewed. Requires Macintosh Plus or later, System 4.1 or later, and a hard drive. $195. Banner Blue Software, P.O. Box 7865, Fremont, CA 94537. 510-794-6850. (May '91)

QPID ⮚⮚⮚⮚
QPID is a contact manager, based on 4th Dimension, that's ideal for organizations that need a single program to track prospects, clients, employees, and jobs. Automatically presents daily scheduled events when launched. Tracks jobs in comprehensive detail. Doesn't create automated sales plans and has no built-in word processor. Clearly written, well-organized manual explains database concepts well. Version 1.4 reviewed. Requires Macintosh Plus or higher with 2 MB of RAM, System 6.03 or later, and a hard drive. $695; 5-user pack, $2,459. GT Omnicom, Inc., 481 Queen St. E., Toronto, Ontario M5A 1T9 Canada. 416-365-1436. (Feb '92)

Set Clock ⮚⮚⮚⮚
Set Clock makes a ten-second phone call to a master-clock driver (near the East Coast) and then sets your Mac's internal clock to accuracy within one second. Version 1.2 reviewed. Version 3.3 shipping. Requires 300-bps or faster modem. Free on various on-line services. Jim Leitch, 61 Shaughnessy Blvd., Willowdale, Ontario M2J 1H9 Canada. 416-496-0828. (Nov '89)

SuperClock! ⮚⮚⮚⮚½
SuperClock! is a superb on-screen time indicator or clock. Can work properly in every environment and also has excellent timer and alarm functions. Perfect for PowerBooks, on which it displays battery status. Version 1.1 reviewed. Version 3.91 shipping. Requires System 4.1 or later. Free (Steve Christensen); available from on-line services such as ZiffNet/Mac. (Nov '89)

TeleMagic ⮚⮚⮚⮚½
TeleMagic is a speedy, flexible contact manager based on the powerful FoxBASE database manager. Excellent, customizable search-and-sort features. Uses a simple notepad interface that automatically tracks date and time of contacts, including those telephoned using the auto-dial feature. Requires learning simple shorthand code for identifying contact status, but this allows sophisticated searches and a wide range of reports. Program has no support for automated sales plans or strategies. Good documentation. Plain interface and weak DTP features hint at TeleMagic's DOS roots, but this program is for sales pros who like to drive fast. Version 10+ reviewed. Requires Macintosh Plus or higher with 2 MB of RAM, System 6.03 or later, and a hard drive. $695; multiuser network version, $9,995. Remote Control International, 5928 Pascal Ct., Carlsbad, CA 92008. 800-992-9952 or 619-431-4000. (Feb '92)

Works ⮚⮚⮚½
Microsoft Works is an easy-to-use combination of word processor, mail-merge system, spreadsheet program, and telecommunications software. Works' spreadsheet component is a basic system that can perform most business analyses. Chart styles can be line, bar, stacked bar, pie, or combination; charts can update automatically when new data is entered into spreadsheets. The sorting function is merely adequate. The word-processing module rates only three mice but is adequate for simple office needs. Spreadsheet functionality is well integrated and has powerful graphics tools but can't handle text formulas or complex text formatting. Version 2.0a reviewed. Version 3.0 shipping. Requires Macintosh Plus or later. $249. Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Jan '91) ★ '86 Eddy

Organizational Tools/Personal-Info Managers

Address Book Plus ⮚⮚⮚⮚
Address Book Plus is a handy name-and-address manager. Works easily as application, or included DA allows file access from other programs. Good sorting and import/export abilities. Flexible phone-dialing and printing options. Can merge database files, but keeping separate files open simultaneously is easier. Wide range of font and type-size options. Fast. Multifield format can be customized by user. No network capability. Version 2.0 reviewed. Requires System 6.03 or later. $99.95; upgrade, $29.95. Power Up Software Corp., 2929 Campus Dr., San Mateo, CA 94403. 800-851-2917 or 415-345-5900. (Feb '92)

AgentDA ⮚⮚⮚½
AgentDA is an appointment-and-reminder utility that handles most scheduling tasks quite well. The desk accessory provides a handy Find function for locating specfic appointments. Has both a calendar view (to check overall schedules) and a time view that arranges appointments in a column format that mimics appointment diaries. Alarm scheduling for important appointments is weak. Can't set up recurring appointments automatically. Version 2.0 reviewed. Version 2.11 shipping. Requires Macintosh Plus or later and System 6.05. $129. Team Building Technologies,

836 Bloomfield Ave., Montreal, Quebec H2V 3S6 Canada. 514-278-3010. (Mar '92)

Alarming Events ⌘⌘⌘½

Alarming Events is a DA that provides an integrated electronic appointment book. Its interface resembles a monthly calendar, where the dates act as buttons and open up to your daily schedule; a five-day view is also available. You can set alarms to go off at specified times, and you can keep track of events that are automatically kept in an ongoing to-do list. It can provide advance warning of upcoming events, and you can designate recurring events. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later, System 6.04 or later, and a hard drive. $99.95. CE Software, Inc., 1801 Industrial Cir., P.O. Box 65580, West Des Moines, IA 50265. 800-523-7638 or 515-224-1995. (Feb '91)

C•A•T III ⌘⌘½

C•A•T is a personal-information manager that tracks contacts, activities, and time. Has documentation and user-interface problems. Features include capacity for an unlimited number of contacts for each account, 16 pages of notes for each, letter writing, drawing, simple math calculation, and even dialing the phone. Difficult to use. Version 1.0 reviewed. Version 1.2 shipping. Requires Macintosh Plus or later and a hard drive. $495. Chang Laboratories, Inc., 10228 N. Stelling Rd., Cupertino, CA 95014. 408-727-8096. (Oct '90)

CalenDAr ⌘⌘⌘

CalenDAr is a reliable, innovative DA that manages your appointments and important reminders. Isn't as full-featured as competing packages but offers a unified interface and excellent control of recorded or system sounds. These sound enhancements include the ability to create repeating reminders or single alarms with your voice, which is digitized and saved with Farallon's MacRecorder driver. Inconvenient for exporting or archiving a record of past activities. Version 1.0 reviewed. Version 1.13 shipping. Requires System 6.07 or later. $60. Psybron Systems, Inc., 1116 Smith St., Ste. 206, P.O. Box 431, Charleston, WV 25322. 800-866-4260 or 304-340-4260. (June '91)

CalendarMaker ⌘⌘⌘

CalendarMaker is a utility that creates a variety of calendars. Excellent printing routines. Calendars can be customized with graphics and icons. Version 3.0 reviewed. Version 3.01 shipping. Requires Macintosh Plus or later and System 4.2 or later; hard drive recommended. $49.95. CE Software, Inc., 1801 Industrial Cir., P.O. Box 65580, West Des Moines, IA 50265. 800-523-7638 or 515-224-1995. (Sept '89)

Cathy Daily Planner ⌘⌘⌘

If you follow the daily comic strip "Cathy," you know that the title character is constantly trying to get her life in order. You can start getting organized too by installing the latest of Amaze's daily planners, which features Cathy Guisewhite's cartoon strips, some fun animations, and a straightforward icon-based interface. For alarm feature to operate, application must be running. Requires Mac Plus or later, System 6.03 or later, and 4 MB of RAM. $59.95. Amaze, Inc., 11810 115th Ave. N.E., Kirkland, WA 98034. 206-820-7007. (Dec '92)

DateBook ⌘⌘⌘⌘

DateBook is an easily customized calendar manager that handles appointment scheduling, reminder alarms, and to-do lists. Includes a file-sharing option for network use, but is primarily a single-user product. Excellent attention to detail. Interface switches quickly between daily, weekly, monthly, and yearly views. Provides a list view of scheduled events and to-do items. Doesn't handle overlapping events. Supports IAC links to TouchBase address-book manager. Printing options cover wide range of formats such as DayTimer, FiloFax, and DayRunner. Version 1.5 reviewed. Requires System 7 or later. $125. After Hours Software, Tri Center Plaza, 5990 Sepulveda Blvd., Van Nuys, CA 91411. 818-780-2220. (Nov '92)

DayMaker ⌘⌘⌘½

DayMaker is a powerful personal-scheduling program with a clumsy interface you'll love to hate. Reliable, and offers nearly all the features needed for flexible time-management. Has many options for alarms, reminders, and to-do lists. Includes simple address book and phone directory with auto-dial support. Lets you create custom menu commands for any layout, view, or sort order you use repeatedly. Printing options include calendar form and predefined label templates. Can't automatically schedule repeating events, and uses unnecessarily complex routines to change or delete information. Version 1.01 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later. $129.95. Pastel Development Corp., 113 Spring St., New York, NY 10012. 212-941-7500. (May '92)

Diet Balancer ⌘⌘⌘½

Diet Balancer makes it easy to keep a food diary, a useful tool if you're trying to lose weight, watch your cholesterol or sodium intake, or just keep track of the kind of food you're eating. A nice feature is that it takes into account your activity level; it also includes sample meal plans for low-fat, low-sodium, low-cholesterol, diabetic, and low-calorie meals. $69.95. Nutridata Software, P.O. Box 769, 1215 Route 9, Wappingers Falls, NY 12590. 914-298-1308. (Dec '92)

Dynodex ⌘⌘⌘⌘½

Dynodex is a fast, powerful name-and-address manager. Complex, multifield data-entry screen is extensively customizable. Good phone-dialing features. Includes FiloFax-binder-sized paper for printouts. Easily manages printing on both sides of the paper. Other binder-paper formats are available. Imports data from tab- or comma-delimited text files, and includes DA to access data while you're in other applications. Has HyperCard stack for preparing HyperCard address stacks. No network capability. Version 2.07 reviewed. Requires Macintosh Plus or later and PostScript or QuickDraw printer. $89.95. Portfolio Systems, Inc., 10062 Miller Ave., Ste. 201, Cupertino, CA 95014. 800-729-3966 or 408-252-0420. (Dec '92)

Easy Alarms ⌘⌘⌘⌘

This personal-scheduling program can both remember and perform many of the routine tasks you perform with your Mac. Traditional reminder features include advance notifications, a snooze button, sound attachments to reminders, flexible repeating-alarms settings, and pop-up menus for viewing reminders. Provides a to-do list and network access to remote calendar files. Scripting feature, although poorly documented, lets you launch applications, send Apple events, type text, autosave, restart or shut down, and control user-defined procedures. Sample scripts are included. Supports Notify! program (from Ex Machina), which lets you automate sending of messages to remote pagers. Version 1.51 reviewed. Version 2.03 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $99; 5-user pack, $299; 10-user pack, $499. Essential Software, 28 Mulford Ave., P.O. Box 402, Staatsburg, NY 12580. 914-889-8365. (Aug '92)

First Things First ⌘⌘⌘⌘

This excellent time manager helps users track tasks, appointments, projects and events with visual and audible reminders. Unusual interface has icon that always floats in view on the desktop, no matter what else you're doing. Free demo version available from on-line services can be upgraded by calling Visionary Software and purchasing unique serial number. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.04 or later. $79.95; demo upgrade, $39.95. Visionary Software, Inc., P.O. Box 69447, Portland, OR 97201.

MICE RATINGS ⌘ ⌘½ ⌘⌘ ⌘⌘½ ⌘⌘⌘ ⌘⌘⌘½ ⌘⌘⌘⌘ ⌘⌘⌘⌘½ ⌘⌘⌘⌘⌘

800-877-1832 or 503-246-6200. (Dec '92)

Front Desk MultiUser ⭐⭐⭐½

Front Desk MultiUser is a scheduling and resource manager best suited for small professional offices. Can be used in a networked multiuser environment. Basic functionality but simple and capable. Version 3.0 reviewed. Version 6.10 shipping. Requires Macintosh Plus or later, System 4.2 or later, and hard drive. $99; $225 for three users; $500 for 10 users. Peachtree Software, 1505 Pavilion Place, Norcross, GA 30093. (800) 247-3224 or (404) 564-5800. (Jan '90)

In Control ⭐⭐⭐⭐½

In Control combines essential features of outlining and database-management software. Supports multiple rows and columns, type styling, complex match and sort functions, and custom layouts. Allows user-defined categories for different types of information. Manages to-do lists reliably and efficiently. Printing options are limited and inflexible. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later, System 6.05 or later, and a hard drive. $129.95. Attain Corp., 48 Grove St., Somerville, MA 02144. 617-776-1110. (Aug '92)

In Touch ⭐⭐⭐

In Touch is a simple DA that keeps track of names, addresses, telephone numbers, and personal notes. Provides basic search capabilities plus the ability to easily print customized labels and envelopes. Printing options include any typeface (in any size) that fits into your layout, including bar codes and facing identification marks; embedded graphics for any of ten return-address selections; and special messages in the lower-left corner of envelopes. Can autodial telephone numbers via the Mac speaker or a modem. Selects and displays only one record at a time. Optional Intouch Network program is a fast, password-protected server application that runs on any networked Mac. Version 1.1 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and System 6.03 or later; hard drive recommended. $99.95; 3-user In Touch Network, $249.95. Advanced Software, Inc., 1095 E. Duane Ave., Ste. 103, Sunnyvale, CA 94086. 800-346-5392 or 408-733-0745. (Apr '92)

macClaimChek ⭐⭐⭐⭐

This HyperCard-based package can help organize your health records and simplify filing claims with health insurers. Lets you keep all your insurance, payer, and claim information in one place. Excellent tech support. Version 2.0 reviewed. Requires HyperCard 2.1 or later. $44.99; add-on claim-form modules, $29.95. Te Corp., P.O. Box 140, Campton, NH 03223. 603-726-7177. (Dec '92)

MacPhonebook ⭐⭐⭐½

MacPhonebook handles name-and-address lists with up to 1,600 entries. Best at printing lists in large, medium, and small (Little Black Book) formats. Good for constant data updating. Version 1.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later. $49.95. Synex, 692 Tenth St., Brooklyn, NY 11215. 800-447-9639 or 718-499-6293. (Oct '89)

Meeting Maker ⭐⭐⭐½

This multiuser group-scheduling package is fully featured. Includes basic messaging system, flexible control of recurring meetings, and useful printing formats for group schedules. Performance is reliable but sometimes sluggish. Complex interface has steep learning curve. Allows designation of other network users as proxies for scheduling meetings. Version 1.0 reviewed. Version 1.5 shipping. Requires Macintosh Plus or later. 5 users, $495; 10 users, $895. ON Technology, Inc., 155 Second St., Cambridge, MA 02141. 617-876-0900. (Nov '91)

My Time Manager ⭐⭐⭐½

My Time Manager is a complete time-management system with a full range of nicely implemented tools. Includes an appointment and reminder book, to-do list, and daily or monthly reports. New version planned for System 7.0 compatibility. Performance is good, and the publisher support is excellent. Version 2.0 reviewed. Version 3.5 shipping. Requires Macintosh Plus or later and System 6.03 or later. $79.95; free upgrades ($15 for new manual). MacShack Enterprises, 19 Harrington Rd., Cambridge, MA 02140. 617-876-6343. (Apr '90)

MyAdvancedMailList ⭐⭐½

MyAdvancedMailList is a simple mailing-list manager that allows 16 fields and 4 categories. Performs three-field sorting. Layout and text-format options are limited. Provides 25 predefined output forms for labels, envelopes, cards, and personal organizers, plus some basic options for custom layouts. Doesn't support Postnet bar codes on envelopes. Version 2.02 reviewed. Version 3.02 shipping. Requires Macintosh Plus or later and System 6.03 or later. $59.95. MySoftware Company, 1259 El Camino Real, Ste. 167, Menlo Park, CA 94025. 415-325-9372. (Sept '91)

Nolo's Living Trust ⭐⭐⭐⭐

This program guides you through creating a living trust, which, unlike a will, lets your heirs avoid probate—a costly, sometimes unnecessary process. You answer a series of questions and then review a document automatically generated by the software. Online help offers clear examples and detailed explanations of every step. Flags some logical or legal inconsistencies. Includes excellent manual and reference book. Version 1.02 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $55.95. Nolo Press, 950 Parker St., Berkeley, CA 94710. 800-992-6656 or 510-549-1976. (Dec '92)

Nolo's Personal Record Keeper ⭐⭐⭐⭐½

Nolo's Personal Record Keeper (formerly For the Record) is a database program designed for legal, financial, and personal records. Allows password-locking for screens containing sensitive personal data. The program is comprehensive and easy to learn. Database fields can be modified, and summary reports can be generated and printed. Good documentation. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $49.95. Nolo Press, 950 Parker St., Berkeley, CA 94710. 800-992-6656 or 510-549-1976. (June '91)

Now Up-To-Date ⭐⭐⭐⭐½

Now Up-To-Date scores high as a personal and workgroup appointment scheduler. Full-featured but elegantly simple, with good network performance and a superb interface. Doesn't require you to connect to a server for personal scheduling, but lets you save group appointments into your calendar. Perfect for portable Macs users who frequently leave the office and yet need to update shared schedule information. Server setup is a no-brainer, but access controls provide inadequate security. Lacks warning device for schedule conflicts. Version 1.1 reviewed. Requires Macintosh Plus or later with System 6.05 or later. $99; 5-user pack, $399; 10-user pack, $599. Now Software, Inc., 319 S.W. Washington St., 11th floor, Portland, OR 97204. 800-237-3611 or 503-274-2800. (Dec '92)

Nutrition Stack, The ⭐⭐⭐½

The Nutrition Stack is a HyperCard nutritional record keeper. Helpful, although nutritional database covers just the basics. Adding new information is difficult. Includes conversion calculator. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later with hard drive and HyperCard. $79. Big Byte Software, 20907 E. High Country Dr., Diamond Bar, CA 91789. 714-595-5549. (Apr '90)

QuickDEX II ⭐⭐⭐½

QuickDex II is an easy-to-use, intuitive name-and-address manager. Interface resembles cards in a deck, with text entry permitted into fields in any order. A single card (record) can hold any amount of text, limited only by available

RAM. Very fast. Up to eight database decks can be open simultaneously. Flexible phone-dialing options, but no record-sorting capability or printing support in version reviewed. Can export text files for use in other programs. Has no network capability. Version 2.3 reviewed. Requires Macintosh Plus or later (hard drive recommended). $60. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (Feb '92)

Remember? ★★★★

Remember? is a shareware INIT that lets your Mac remind you of important items. At startup it presents a window with any daily notes. Easy-to-maintain free-form occasion list. Lets you check your calendar in advance. Implementation is clean. Version 1.3 reviewed. Version 2.32 shipping. Requires System 6.03 or later. Shareware fee, $20; $5 on disk. David Warker, 1330 W. North St., Egg Harbor, NJ 08215. 609-965-4357. (July '90)

Rendezvous ★★★

Rendezvous is a classy personal organizer with good printing abilities. Useful and well-designed calendar, planner, diary, and to-do-list forms. Lacks a name-and-address section and needs automatic transfer of data between sections. Version 2.5 reviewed. Version 3.5/Plus shipping. Requires Macintosh Plus or later and System 6.03 or later. $200. PMC Telesystems, Inc., P.O. Box 5127, Vancouver, British Columbia V6B 4A9 Canada. 800-667-0456 or 604-255-9949. (Feb '90)

Reunion ★★★★

This HyperCard stack is a good genealogy program. Supports GEDCOM. Includes space for adding digitized photos, an index, and a birthday file. A complex program with an excellent manual. Easy to use. Includes HyperCard. Version 1.5 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.05 or later. $169. Leister Productions, P.O. Box 289, Mechanicsburg, PA 17055. 717-697-1378. (Oct '90)

Schedule+ ★★★½

This multiuser group-scheduling package can be integrated into the Microsoft Mail E-mail system. Simple, easy-to-use, but bare-bones interface. Works for both personal and group scheduling. User is dependent upon reliable network access to Mail server. Version 1.00a reviewed. Requires Macintosh Plus or later and Microsoft Mail server on network. 5 users, $195; 20 users, $775 (doesn't include Microsoft Mail). Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Nov '91)

Smart Alarms and Appointment Diary ★★★

Smart Alarms and Appointment Diary are two bundled DAs that provide separate electronic appointment books. Smart Alarms lets you set simple, reliable reminders for events (including recurrent projects), and these reminders pop up no matter what application you're using. Appointment Diary is equivalent to a calendar, with dates that act as buttons and open up to a daily schedule. Information can be copied from Appointment Diary to Smart Alarms, but the two DAs are not linked. A networked, multiuser version of Appointment Diary is available. Version 3.0/3.1 reviewed. Version 3.1 Plus Pack shipping. Requires Macintosh Plus or later. $90; discounted multiuser licenses available. JAM Software, P.O. Box 4036, Meriden, CT 06450. 203-630-0055. (Feb '91)

Take Control of Cholesterol ★★★½

Take Control of Cholesterol is one of a series of health- and food-related programs. It's clearly a simple port from something less friendly than a Mac, but it's a good tool. Designed for use with *Eater's Choice*, a cholesterol-reduction book. Provides worksheets and meal plans but has no complete food database. Version 1.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later and System 4.2 or later. $19.95. Lifestyle Software Group, 63 Orange St., St. Augustine, FL 32084. 800-289-1157 or 904-825-0220. (Aug '90)

ThoughtPattern ★★★

ThoughtPattern is an innovative, free-form database for managing personal information. Has powerful search-and-retrieval capabilities that work much like an electronic index-card file. Can link information to documents created in other applications. Poorly written manual, but application has good on-line help. Marred by a few bugs, but still a useful tool for users who find conventional databases too rigid. Version 1.1 reviewed. Version 1.3 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $149.95. Bananafish Software, 730 Central Ave., San Francisco, CA 94117. 415-929-8135. (Oct '91)

TouchBASE ★★★★½

TouchBASE is a fast DA that provides sophisticated, multicriteria search capabilities in personal-address-book databases. Supports phone dialing. Has wide range of printing options and templates for labels, envelopes, and double-sided address books. Works well in networked multiuser mode. Version 2.0 reviewed. Version 2.01 shipping. Requires Macintosh Plus or later, System 6.05 or later, and a hard drive; network use requires dedicated AppleShare server. $125 per user. After Hours Software, Tri Center Plaza, 5990 Sepulveda Blvd., Van Nuys, CA 91411. 818-780-2220. (Dec '92)

Visions ★★★

This astrological program is easy to use and comes with data for celebrities such as Hugh Hefner, Princess Diana, and Zsa Zsa Gabor. You also can enter your own date, time, and place of birth to get a personal daily horoscope. The information you get is not nearly as interesting as your horoscope in the newspaper, but serious students of astrology will probably appreciate this program. $39.95. Lifestyle Software Group, 63 Orange St., St. Augustine, FL 32084. 800-289-1157 or 904-825-0220. (Dec '92)

WillMaker ★★★★

WillMaker is a simple, valuable program for creating wills. Not elegant but does the job reliably and well. It can present a series of straightforward questions for you to answer or full information screens that explain legal issues. Printed output is fairly plain, but text can be exported for use in a word-processing or page-layout program. The program cannot handle conditional bequests. Includes an excellent manual that deals with the software, wills, estate planning, and professional advice. Version 4.0 reviewed. Version 4.01 shipping. Requires Macintosh Plus or later and System 6.03 or later. $69.95. Nolo Press, 950 Parker St., Berkeley, CA 94710. 800-992-6656 or 510-549-1976. (Apr '91)

ORGANIZATIONAL TOOLS/PROJECT PLANNERS & ORGANIZERS

AEC Information Manager ★★★

AEC Information Manager is a dedicated database program for managing large volumes of project information. Designed for use with MacProject II or Micro Planner. Not integrated with FastTrack Resource. Helps manage data needed to make decisions and monitor status. Allows customized fields. Alarm feature keeps track of critical dates but is poorly integrated. Version 1.22 reviewed. Requires Macintosh Plus or later and a hard drive. $695. AEC Software, Inc., 22611 Markey Ct., Bldg. 113, Sterling, VA 20166. 800-346-9413 or 703-450-1980. (Oct '92)

BizPlanBuilder ★★★★

Creating a good business plan isn't difficult if you use BizPlanBuilder. Handles both financial predictions and text describing company plans and structure. Uses your word processor and spreadsheet program to create original data. $129. JIAN, 127 Second St., Los Altos, CA 94022. 415-941-9191. (Dec '92)

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★

Business Plan Toolkit ☆☆☆☆
Tim Berry's Business Plan Toolkit is an integrated set of Excel macros and templates with HyperCard-based text that makes creating business plans and forecasts relatively easy. Excellent manual. Version 2.0 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later, System 4.2 or later, and Microsoft Excel or Lotus 1-2-3. $149.95. Palo Alto Software, 2641 Columbia St., Eugene, OR 97403. 800-229-7526 or 503-683-6162. (Sept '89)

FastTrack Resource ☆☆☆☆
This project-management software combines Gantt charts with good ad hoc tools for resource management. No CPM support or integration with AEC Information Manager. Customizable reports are excellent and easy to use. Ideal for managers whose projects include more than just people. Version 1.0 reviewed. Requires Macintosh Plus or later and a hard drive. $249. AEC Software, Inc., 22611 Markey Ct., Bldg. 113, Sterling, VA 20166. 800-346-9413 or 703-450-1980. (Oct '92)

FastTrack Schedule ☆☆☆☆
FastTrack Schedule is a flexible Gantt-based project scheduler that uses a hierarchical outline format. Provides a high degree of functionality and excellent on-screen and printed-graphics abilities. A good project-management system for the Macintosh. Lacks spreadsheet and graphing tools as well as capabilities for reporting slipped start or completion dates. Version 1.5 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and a hard drive. $279. AEC Software, Inc., 22611 Markey Ct., Bldg. 113, Sterling, VA 20166. 800-346-9413 or 703-450-1980. (June '91)

FlowChart Express ☆☆☆
This fast, easy-to-understand flowcharting program has basic drawing tools and automatic labeling of chart components. Creates flowcharts, structure charts, and family trees. Supports charts as big as 76 x 81 inches, which can be printed in sections. Not suitable for documenting complex hierarchical processes (such as charts within charts). Lacks a few text-formatting features and a magnifying-glass tool. Version 1.0 reviewed. Requires Macintosh Plus or later and System 6.04 or later; hard drive recommended. $149. Kaetron Software Corp., 12777 Jones Rd., Ste. 445, Houston, TX 77070. 713-890-3434. (Dec '92)

FlowMaster ☆☆☆☆½
FlowMaster is a flowcharting package that charts your ad dollars in print, TV, billboard, and other media. Analyzes costs/benefits of a campaign in innovative terms. Includes bar-chart and tabular output as well as a color-drawing environment for touching up charts. Version 2.01 reviewed. Version 2.5i shipping. Requires Macintosh Plus or later and a hard drive. $1,200/year license fee. Telmar Information Services Corp., 902 Broadway, New York, NY 10010. 212-460-9000. (June '90)

KeyPlan ☆☆½
KeyPlan is an outliner/project planner that creates good reports and graphs. Lacks some high-end tools. Easy to use. Doesn't support actual data. Flexible and suited for managers who need quick planning help but don't need to track a project once it's started. Version 1.07 reviewed. Requires Macintosh Plus or later, System 6.03 or later, 2 MB of RAM, and a hard drive. $249. Micro Planning International, 3801 E. Florida Ave., Ste. 601, Denver, CO 80210. 303-757-2216. (Oct '92) ★ '89 Eddy

MacFlow ☆☆☆☆½
MacFlow is a specialized flowchart tool. Creates a variety of general business diagrams, including decision trees and project-schedule charts. Top-level chart objects work like buttons in HyperCard, revealing underlying details or even launching separate applications. Good hierarchical nesting capabilities plus flexible control of connection or intersection of lines and symbols. Imports art for conversion to custom symbols. Version 3.5 reviewed. Version 3.7 shipping. Requires Macintosh Plus or later and System 6.03 or later. $345. Mainstay, 5311-B Derry Ave., Agoura Hills, CA 91301. 818-991-6540. (July '91)

MacProject II ☆☆☆½
MacProject II is a well-executed PERT and CPM project-management system with time and expense reporting. Intuitive interface. Can manage small- or medium-sized projects and produce good management reports. Can't retain custom table formats. Excellent documentation. Version 2.5 reviewed. Version Pro 1.0 shipping. Requires Macintosh Plus or later, 2 MB of RAM, and a hard drive. $499. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (Oct '92)

MacSchedule ☆☆☆½
MacSchedule is a simple Gantt-based project-management and outliner system. Offers advanced project-time scaling but isn't for advanced Gantt users. Limited color, graphics, and printing capabilities. Useful spreadsheet and graphing tools. Interface complicated by too many hierarchical menus, which could be combined into dialog boxes. Tracks slipped start or completion dates. Version 2.5 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $295. Mainstay, 5311-B Derry Ave., Agoura Hills, CA 91301. 818-991-6540. (June '91)

MetaDesign ☆☆☆☆½
MetaDesign is a powerful organizational tool. Graphically depicts relationships among systems. Complex, detailed program. Version 1.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later. $250 direct. Meta Software Corp., 125 Cambridge Park Dr., Cambridge, MA 02140. 800-227-4106 or 617-576-6920. (Apr '88)

Micro Planner Manager ☆☆☆☆
Micro Planner Manager provides full PERT and CPM implementations with advanced resource leveling and management reporting. Printed output can be easily customized for management presentations. Stringent logic requirements take time to grasp and implement. Ideal for project-management pros. Version 1.0 reviewed. Version 1.03 shipping. Requires Macintosh Plus or later, System 6.03 or later, 2 MB of RAM, and a hard drive. $695. Micro Planning International, 3801 E. Florida Ave., Ste. 601, Denver, CO 80210. 303-757-2216. (Oct '92)

PERT & Critical Path Techniques ☆☆☆½
PERT & Critical Path Techniques is a technically sophisticated project-management system. Has full Gantt and CPM implementation, including all second-order slack and timing calculations. Doesn't make good use of the Mac interface. Version 4.0 reviewed. Version 6.0 shipping. Requires Macintosh Plus or later. $145 direct. Lionheart Press, Inc., P.O. Box 4056, Allentown, PA 18105. 514-933-4918. (Oct '89)

Project ☆☆☆☆
This project-management tool is powerful and flexible. Provides excellent control of custom reports, scheduling algorithms, and PERT or Gantt charts. Extensive customizing options can be intimidating. Good for presenting and tracking projects. Version 3.0 reviewed. Requires Macintosh Plus or later and a hard drive. $695. Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Oct '92)

Project Scheduler ☆☆☆½
This project-management software is frustratingly nonintuitive, but it has several advantages for full-time project planners (especially if they need WBS or OBS codes). A variety of time lines and reports are possible. Someone familiar with the DOS version might forgive the Macintosh version's unfriendly interface. Version 4 reviewed. Version 5 shipping. Requires Macintosh Plus or later and System 6.03 or later. $695. Scitor Corp., 393 Vintage Park Dr., Ste. 140, Foster City, CA 94404. 415-570-7700. (Jan '91)

MICE RATINGS ☆ ☆½ ☆☆ ☆☆½ ☆☆☆ ☆☆☆½ ☆☆☆☆ ☆☆☆☆½ ☆☆☆☆☆

ScheduleMaker ♮♮♮♮
Schedule Maker is a dedicated employee- or equipment-scheduling system that uses a simple Gantt-type chart format. Not strictly a project-management tool. Automates the process of figuring out who should work when and how much it will cost. Version 2.0 reviewed. Version 3.01 shipping. Requires Macintosh Plus or later. $395. Craig Systems, 16717 Monitor Ave., Baton Rouge, LA 70817. 504-756-2322. (Oct '89)

ShiftWorker ♮♮♮½
ShiftWorker is a quick, accurate program for organizing complicated work-shift schedules. Uses expert-system logic well but has relatively crude interface. Data entry is simple. Handles a maximum of ten work shifts, defined by start time, meal breaks, and end time. Tracks details of work absences, leave time, and an employee's shift requirements and requests such as overtime. Adequate for small businesses. Version 1.04 reviewed. Requires Macintosh Plus or later and a hard drive. $229. Expert Systems, Inc., 2616 Quebec Ave., Melbourne, FL 32935. 407-242-0140. (June '92)

STELLA II ♮♮♮♮½
STELLA II is a simulation tool for modeling and analyzing complex business systems. Handles a wide variety of variables and conditions. Requires that you master a discipline called system dynamics. Version 1.0 reviewed. Version 2.21 shipping. Requires Macintosh Plus or later, 2 MB of RAM, System 6.04 or later, and a hard drive. $695; volume and academic discounts available. High Performance Systems, Inc., 45 Lyme Rd., Ste. 300, Hanover, NH 03755. 800-332-1202 or 603-643-9636. (June '88)

Swing Shift ♮♮♮
Swing Shift is a powerful HyperCard-based system for organizing complicated work-shift schedules. Has busy, complicated interface that obscures its many useful features. Data entry involves creating work shifts, defining work patterns, entering employee information, and overall scheduling. Support of work patterns means that complex requirements for individual employees are automatically incorporated into schedules. Handles up to 250 employees and a maximum of 150 work shifts. Allows either automated or manual scheduling, and alerts user to schedule conflicts. Adequate for small businesses. Includes HyperCard 2.1. Version 2.0 reviewed. Version 2.5 shipping. Requires Macintosh Plus or later with 2 MB of RAM, HyperCard 2.0 or later, and a hard drive. $595. Computed Designs, Inc., P.O. Box 802, Temple City, CA 91780. 818-287-5496. (June '92)

TopDown ♮♮♮♮½
TopDown is a strong flowchart and organization-chart tool with a choice of connection modes for each individual line. Can generate text-based reports with support for color output. Excellent right-angle reconnection capability, even with major object shifts. Excellent navigation throughout hierarchy, view to view, and page to page. Comes with complete set of ANSI flowchart symbols, Yourdon-style data-flow diagram symbols, and a custom set of symbols that combines business icons with text boxes. Also supports up to 48 user-defined symbols, including EPS-format graphics. Good choice for systems analysts, information consultants, and general business planners. Version 3.0 reviewed. Version 3.1 shipping. Requires Macintosh Plus or later and System 6.04 or later; hard drive recommended. $345. Kaetron Software Corp., 12777 Jones Rd., Ste. 445, Houston, TX 77070. 713-890-3434. (Jan '92)

OUTPUT DEVICES

Abaton LaserScript LX ♮♮♮
This 300-dpi PostScript-clone personal laser printer has minor PostScript-compatibility problems. Uses Microsoft-Bauer PDL interpreter and a TEC laser engine. Standard 2.5 MB of RAM is upgradable to 4.5 MB. Comes with 35 built-in fonts and a 150-sheet paper tray. $1,995. Abaton (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (Sept '92)

AddressWriter ♮♮♮½
This compact 8-pin dot-matrix envelope printer has 144-dpi resolution. Unusual shape requires printer to extend over edge of desk. Connecting cable for standard version uses Mac's serial port. Optional LocalTalk interface lets you network the printer. After selecting a networked AddressWriter via the Chooser, you can use standard Mac applications' custom layouts and mailing-list databases. Envelope feeder holds 100 standard #10 envelopes or about 200 postcards. Includes easy-to-use mailing-list manager that handles printing. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $595; LocalTalk interface kit, $199; label feeder, $75. CoStar Corp., 22 Bridge St., Greenwich, CT 06830. 800-426-7827 or 203-661-9700. (Sept '92)

Apple LaserWriter IIf ♮♮♮♮
The LaserWriter IIf is a black-and-white, 300-dpi, PostScript laser printer that's faster and cheaper than its predecessor, the IINTX. Includes support for PostScript Level 2. Based on Canon SX laser engine. Adding at least 4 MB of RAM enables PhotoGrade, Apple's excellent technology for improved printing of halftone photos. Built-in FinePrint type-enhancement feature works but doesn't measure up to the quality of Hewlett-Packard's new RET system. Includes LocalTalk, serial, and parallel ports. SCSI hard drive can be connected for type-font storage. Equipped with one 200-sheet paper tray. $3,299 with 4 MB of RAM. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Feb '92)

Apple LaserWriter IIg ♮♮♮♮
The LaserWriter IIg is a black-and-white, 300-dpi, PostScript laser printer that's fast and includes PhotoGrade, Apple's excellent technology for improved printing of halftone photos. Supports PostScript Level 2. Based on Canon SX laser engine. Built-in FinePrint type-enhancement feature works but doesn't measure up to the quality of Hewlett-Packard's new RET system. Includes Ethernet, LocalTalk, serial, and parallel ports. SCSI hard drive can be connected for type-font storage. Comes with one 200-sheet paper tray. $4,299 with 8 MB of RAM. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Feb '92) ★ '91 Eddy

Apple LaserWriter IINTX ♮♮♮♮
Until the arrival of Apple's PostScript Level 2 printers, this machine was one of the best choices for price and performance. Memory is expandable to 12 MB, and it can accommodate a SCSI hard drive for font storage. Comes with toner cartridge and envelope cassette but lacks paper-feed options. $4,999. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Sept '91)

Apple Personal LaserWriter LS ♮♮♮♮
The Personal LaserWriter LS is a 300-dpi laser printer that does not support PostScript. Slow, and no PostScript upgrade is possible. Easy-to-install consumables. Comes with 13 TrueType fonts. Output quality is excellent with Adobe Type Manager or TrueType fonts. $1,199. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Sept '91)

Apple Personal LaserWriter NT ♮♮½
This 300-dpi PostScript personal laser printer is slow with complex graphics files but is easy to set up. Produces good text quality. Standard 2 MB of RAM is upgradable to 6 MB. The toner and drum come in a sealed cartridge. Uses a Canon LX laser engine. Comes with 35 Adobe fonts. Has a 250-sheet paper tray. A PIC chip helps this printer's performance with AppleTalk-intensive applications. $2,199.

MICE RATINGS ♮ ♮½ ♮♮ ♮♮½ ♮♮♮ ♮♮♮½ ♮♮♮♮ ♮♮♮♮½ ♮♮♮♮♮

Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Sept '92)

Apple Personal LaserWriter NTR ‡‡‡½

This 300-dpi PostScript Level 2 laser printer is based on the same 4-ppm Canon LX engine as its predecessor, the Personal LaserWriter NT, but is almost 50 percent faster when printing complex graphics. Has 36 built-in PostScript type fonts and 3 MB of RAM. Standard paper tray holds only 50 sheets. Includes simultaneously active and auto-sensing LocalTalk, serial, and parallel ports, which allow Macs and PCs to print at the same time. $2,199; optional 250-sheet paper tray, $200. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Oct '92)

Apple StyleWriter ‡‡‡

This compact personal inkjet printer has excellent 360-dpi output. Requires cumbersome setup. Upgraded software driver significantly boosts speed and allows background operation with PrintMonitor. Includes 13 TrueType fonts. Version 7.22 driver reviewed. Requires System 6.07 or later. $399. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Sept '92)

Avery Personal Label Printer ‡‡½

The Personal Label Printer includes hardware identical to the CoStar LabelWriter II but suffers from poor software. Stationary thermal print head produces text or graphics at 138-dpi resolution on 1.125-x-3.5-inch standard 4150 labels. Included DA software is cumbersome and time-consuming. DA lacks database capability for sorting and retrieving names and addresses but can include simple graphics on labels. Bundled MacLabelPro application is unnecessarily powerful and doesn't include a template for the 4150 label format. Requires Macintosh Plus or later. $279.95. Avery Dennison Corp., 818 Oak Park Rd., Covina, CA 91724. 800-541-5507 or 818-915-3851. (Feb '92)

Bézier BP4040 ‡‡½

This 300-dpi PostScript-clone personal laser printer has driver-compatibility problems but is easy to set up. Uses TrueImage 1.1 interpreter and a Canon LX laser engine. Good text quality. Standard 2 MB of RAM is not upgradable. The toner and drum come in a sealed cartridge. Comes with 35 fonts. Standard 50-sheet paper tray is flimsy. An optional 250-sheet tray is available. $1,895. Bézier Systems, Inc., 1190 Saratoga Ave., San Jose, CA 95129. 408-345-0345. (Sept '92)

Brother HL-4PS ‡‡½

This 300-dpi PostScript-clone personal laser printer has driver-compatibility problems but is easy to set up. Uses BrScript interpreter and a Canon LX engine. Standard 2 MB of RAM is upgradable to 6 MB. The toner and drum come in a sealed cartridge. Comes with 35 fonts. Standard 50-sheet paper tray is flimsy. An optional 250-sheet tray is available. $2,595. Brother International Corp., 200 Cottontail Lane, Somerset, NJ 08875. 908-356-8880. (Sept '92)

CalComp ColorMaster Plus PS ‡‡‡‡

These two thermal-wax-transfer color printers (6603PS and 6613PS) are well built and easy to use. Excellent documentation. Good image quality and performance. Both use PhoenixPage PostScript-clone interpreter instead of true Adobe PostScript. Each includes a LocalTalk port, an RS-232 serial port, a Centronics parallel port, and a SCSI port for attaching a hard drive for font storage. 6603PS letter-sized model, $5,495; 6613PS tabloid-sized model, $9,995. CalComp, Inc., 2411 W. La Palma Ave., Anaheim, CA 92801. 800-225-2667 or 714-821-2000. (Oct '92)

CoStar LabelWriter II ‡‡‡‡

The LabelWriter II has a stationary thermal print head that produces text or graphics at 138-dpi resolution on 1.125-x-3.5-inch standard 4150 labels. Included DA software is fast, easy to use, and supplies a powerful database engine for names and addresses. Bundled application can create customized label templates that use your existing mailing lists and works with other output devices, including laser printers. Optional AppleTalk Network Box lets you share the printer with other networked Macs. Version 1.01 reviewed. Version 1.02B1 shipping. Requires Macintosh Plus or later. $249.95; AppleTalk Network Box, $199. CoStar Corp., 22 Bridge St., Greenwich, CT 06830. 800-426-7827 or 203-661-9700. (Feb '92)

Dataproducts LZR 960 ‡‡‡‡½

This 300-dpi PostScript Level 2 personal laser printer produces good text quality. Uses a Sharp engine. Comes with 35 Adobe fonts and a 250-sheet paper tray. Standard 2 MB of RAM is insufficient for complex graphics. Upgradable to 10 MB of RAM. Includes SCSI port to attach hard drive for font storage. Two-year warranty. $2,195. Dataproducts Corp., 6219 DeSoto Ave., Woodland Hills, CA 91365. 800-334-3174 or 818-887-8000. (Sept '92)

Dayna EtherPrint ‡‡‡‡‡

EtherPrint is not an EtherTalk/LocalTalk router, but it lets LaserWriters connected on AppleTalk act like Ethernet devices. When you look at the Chooser on your Ethernet-networked Mac, the printer with EtherPrint attached appears as an available device. EtherPrint has Ethernet and LocalTalk ports. Version 1.5 ROM reviewed. Version 1.6 shipping. Requires LocalTalk-compatible printer. $499. Dayna Communications, Inc., 50 S. Main St., Salt Lake City, UT 84144. 801-531-0600. (Apr '91) ★ '90 Eddy

Du Pont PPI 600 ‡‡‡‡½

This 600-dpi 12-ppm black-and-white laser printer is extremely fast and creates superb sharp images. Uses Hyphen PostScript-clone RIP in a separate unit. Features auto-sensing serial, parallel, and LocalTalk ports — a real plus for multiplatform environments. Prints on paper as large as tabloid sized. $18,990. Du Pont Printing and Publishing, Barley Mill Plaza #15, Wilmington, DE 19880. 800-538-7668 or 302-733-9480. (Sept '92)

Epson EPL-7500 ‡‡‡½

This 300-dpi PostScript personal laser printer is easy to set up. Produces good text quality. Standard 2 MB of RAM is upgradable to 6 MB. The toner and drum come in a sealed cartridge. Uses a Minolta SP101 engine. Comes with 35 Adobe fonts. Has a 250-sheet paper tray. Two-year warranty. $2,999. Epson America, Inc., 20770 Madrona Ave., Torrance, CA 90503. 800-922-8911 or 310-782-0770. (Sept '92)

Fujitsu RX-7100PS ‡‡‡

This PostScript personal laser printer comes with a dual-bin paper tray. Bundled with software that lets you choose different bins for different pages in a document. Competitive speed but nonstandard interface. The RX-7100PS uses a Fujitsu LED engine, comes with a DB-9 LocalTalk connector, and has 35 built-in Adobe fonts. Two paper trays hold 150 pages each. $3,190. Fujitsu America, Inc., 2904 Orchard Pkwy., San Jose, CA 95134. 800-626-4686 or 408-432-1300. (Mar '91)

Fujitsu RX-7100PS+ ‡‡‡

This PostScript laser printer has above-average performance. Has two paper bins. Nice software. $3,790. Fujitsu America, Inc., 2904 Orchard Pkwy., San Jose, CA 95134. 800-626-4686 or 408-432-1300. (Oct '90)

GCC BLP Elite ‡‡‡

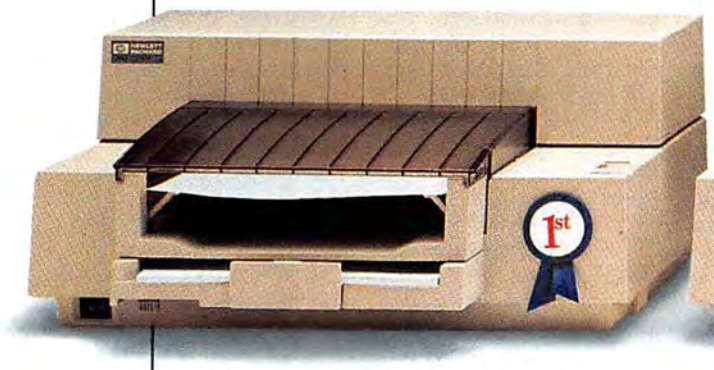
This 300-dpi PostScript personal laser printer produces adequate print quality. Standard 2 MB of RAM is upgradable to 4 MB. Bundled QuickEnvelope software is reliable and useful. Toner cartridge and drum are separate from each other. Uses an OkiLaser 400 engine. Comes with 17 Adobe fonts. Has a 200-sheet paper tray. $1,399 direct. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Sept '92)

GCC BLP Elite 8 ‡‡‡½

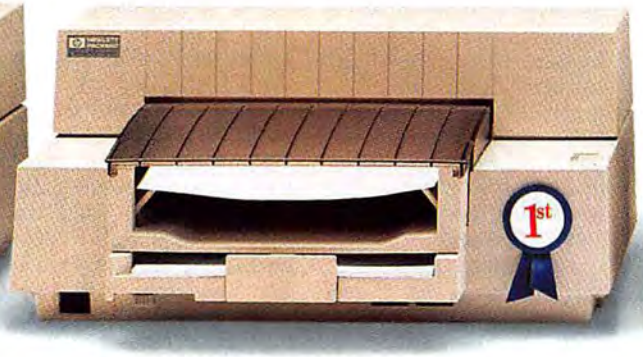
This 300-dpi PostScript

MICE RATINGS ‡ ‡½ ‡‡ ‡‡½ ‡‡‡ ‡‡‡½ ‡‡‡‡ ‡‡‡‡½ ‡‡‡‡‡

Hewlett-Pac
Macint



First place. HP DeskWriter printer.



First place. HP DeskWriter C color printer.

kard wows the osh crowd.



t place. HP LaserJet printer.

First place. HP ScanJet IIc color scanner.

First place. HP ScanJet grayscale scanner.

HP's Mac-compatible products win five first-place awards.

Hewlett-Packard? Yes, indeed. Not only does HP make a wide range of printers and scanners for the Macintosh. We make products that are real winners with Mac enthusiasts.

The recent Macworld World-Class Awards competition proved this conclusively. The result of the vote by subscribers: "Hewlett-Packard products took unprecedented top honors in every printer and scanner category—five in all."*

Frankly, we're not surprised. Our line of HP LaserJets, HP DeskWriters and HP ScanJets were designed specifically for the Mac. Assuring you exceptional performance. And true compatibility with your Mac hardware and software.

For a closer look at the winners, call **1-800-35HPMAC,** Ext. 7036 for your nearest authorized HP dealer. Then get ready to wow people with your output.

HEWLETT PACKARD

*Macworld, August 1992.

1992 Hewlett-Packard Company PE12211

personal laser printer has good performance. Produces adequate print quality. Standard 2 MB of RAM is upgradable to 4 MB. Bundled QuickEnvelope software is reliable and useful. Toner cartridge and drum are separate from each other. Uses an OkiLaser 800 engine. Comes with 17 built-in Adobe fonts. Has a 200-sheet paper tray. $1,699 direct. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Sept '92)

GCC BLP II ⭐⭐⭐

This 300-dpi PostScript personal laser printer produces adequate print quality. Standard 2 MB of RAM is upgradable to 4 MB. Offers edge-to-edge printing with standard RAM but may not handle complex graphics without RAM upgrade. Bundled QuickEnvelope software is reliable and useful. Toner cartridge and drum are separate from each other. Uses an OkiLaser 400 engine. Comes with 35 Adobe fonts. Has a 200-sheet paper tray. Includes SCSI port to attach hard drive for font storage. Noisy. Goes into a quiet sleep mode when left idle. $1,799 direct. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Sept '92)

GCC BLP IIS ⭐⭐⭐⭐

This 300-dpi PostScript personal laser printer produces adequate print quality. Standard 4 MB of RAM; no RAM upgrade available. Offers edge-to-edge printing. Bundled QuickEnvelope software is reliable and useful. Toner cartridge and drum are separate from each other. Uses an OkiLaser 800 engine. Comes with 35 Adobe fonts. Has two 200-sheet paper trays. Includes SCSI port to attach hard drive for font storage. Noisy. Goes into a quiet sleep mode when left idle. $2,599 direct. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Sept '92)

GCC Personal LaserPrinter II ⭐⭐⭐⭐½

The PLP II is a bargain-priced 300-dpi laser printer. Slow performance but excellent image quality. Is upgradable to PostScript. Can't spool print jobs, but software allows background printing. Comes with QuickEnvelope software, Adobe Type 1 fonts, and Adobe Type Manager. Version 2.0 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later and a hard drive. $949 direct; PostScript upgrade, $799. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Sept '91) ★ '89 Eddy

GCC Personal LaserPrinter IIS ⭐⭐⭐⭐½

The GCC Personal LaserPrinter IIS is a fast 300-dpi printer with high image quality. Its clever Sleep mode minimizes noise. Setup and consumables replacement are challenging. Can be upgraded to support PostScript. Can't spool print jobs but allows background printing. Comes with QuickEnvelope software, Adobe Type 1 fonts, and Adobe Type Manager. Version 2.0 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later and a hard drive. $1,299 direct; PostScript upgrade, $799. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Sept '91) ★ '89 Eddy

GCC Technologies WriteImpact ⭐⭐⭐⭐

The WriteImpact is a near-letter-quality dot-matrix printer. Driver features include 25-to-400-percent enlargement and reduction, smoothing, print preview, and kerning. Uses special Bitstream fonts that tend to be large but also work well with ATM. Performance is very good. Version 1.01 (driver) reviewed. Version 2.11 shipping. Requires Macintosh Plus or later and a hard drive. $599 direct. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (June '90)

GCC WriteMove ⭐⭐⭐½

The WriteMove is one of the smallest, lightest, Mac-compatible inkjet printers. Slow. Produces resolutions up to 192 dpi. Weighs 3 pounds and runs on batteries or AC. Comes with five Bitstream fonts. Print quality varies widely, depending on paper and ink used. Limited printable area. Bundled with QuickEnvelope and QuickSpool II. Requires Macintosh Plus or later and a hard drive. $499 direct. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Sept '91)

General Parametrics Spectra*Star 430 ⭐⭐⭐⭐

Spectra*Star 430 is a 300-dpi, thermal-wax-transfer color printer with excellent output. Uses PipeLine's PowerPage PostScript clone, which is slower than true Adobe PostScript Level 2. Accepts PostScript, HPGL, TARGA, and NAPLPS files. Options include slide printer and internal hard drive. $6,995. General Parametrics Corp., 1250 Ninth St., Berkeley, CA 94710. 800-223-0999 or 510-524-3950. (May '92)

Hewlett-Packard ColorPro Graphics Plotter ⭐⭐⭐

The ColorPro Graphics Plotter is an eight-pen desktop plotter that requires third-party software. Fonts are limited to an optional Graphics Enhancement Cartridge that requires some BASIC programming. $1,295. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Feb '88)

Hewlett-Packard DeskWriter ⭐⭐⭐⭐

The DeskWriter is a compact, portable, relatively fast black-and-white inkjet printer. Its 300-dpi black-and-white output can't match laser printers' output at the same resolution. Software driver upgrade significantly boosts speed and allows background operation with PrintMonitor. Includes 13 TrueType and 13 Agfa Compugraphic fonts. Networkable via LocalTalk. Good manual. Version 3.1 driver reviewed. $599. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Sept '92)

Hewlett-Packard DeskWriter C ⭐⭐⭐⭐

This affordable 300-dpi color inkjet printer provides good image quality. Can be slow for complex color layouts, because Mac does all imaging and spooling. No built-in PostScript support. Provides direct serial link or LocalTalk network connection. Easy setup, but switching cartridges (for either black-and-white or color modes) complicates use when alternating between text-only and color print jobs. Full-page color images leave plain paper damp and wrinkled; special coated papers for inkjet printers provide better color and more-stable images. Can print on 3M transparencies. Requires Macintosh with 4 MB of RAM and a hard drive. $1,095. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (May '92)

Hewlett-Packard LaserJet IIP ⭐⭐½

The HP LaserJet IIP, when configured as an Adobe PostScript printer, is slow. Has a 50-sheet standard paper tray (an optional 250-sheet tray is available). Configuration is somewhat difficult because the manual lacks clear instructions about installing the PostScript cartridge, the LocalTalk card, and extra 2 MB of RAM. Version IIP reviewed. Version IIP Plus shipping. $2,195; 250-sheet paper tray, $195. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Mar '91)

Hewlett-Packard LaserJet III ⭐⭐

This black-and-white, 300-dpi PostScript laser printer is slow. Based on Canon SX laser engine. Hewlett-Packard's new RET system provides excellent text rendition. Includes AppleTalk, serial, and parallel ports. Equipped with one 200-sheet paper tray. $3,395 with AppleTalk interface and 2 MB of RAM. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Feb '92)

Hewlett-Packard LaserJet IIIP ☆☆½

This 300-dpi PostScript Level 2 personal laser printer is slow but easy to set up. Produces excellent text quality. Standard 2 MB of RAM is insufficient for some complex graphics. Upgradable to 4 MB. The toner and drum come in a sealed cartridge. Uses a Canon LX laser engine. Comes with 35 Adobe fonts. Includes a flimsy 50-sheet paper tray. An optional 250-sheet tray is available. $2,495 with PostScript Level 2 cartridge. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Sept '92)

Hewlett-Packard LaserJet IIISi ☆☆☆☆

The LaserJet IIISi is a black-and-white, 300-dpi, PostScript laser printer that delivers fast performance and excellent text rendition. Hewlett-Packard's new RET (Resolution Enhancement Technology) system is built in. Based on Canon NX laser engine. Includes AppleTalk port. Equipped with two 500-sheet paper trays. Bulky. $6,995 with AppleTalk interface and 5 MB of RAM. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Feb '92)

Hewlett-Packard PaintJet ☆☆☆

This inexpensive inkjet printer is slow, with entry-level print quality. Limited color range with all colored inks in one cartridge. Separate power supply. Requires Macintosh PrintKit. $1,395; Macintosh PrintKit, $125. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (May '90)

Hewlett-Packard PaintJet XL ☆☆☆½

The HP PaintJet XL is an inkjet painter with low-resolution QuickDraw (180-dpi) quality, but it produces good-looking output. Can't reproduce all colors. Fast. Paper handling is good, and it can print B-size sheets. Requires Macintosh PrintKit. $2,495; Macintosh PrintKit, $125. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (May '90)

Hewlett-Packard PaintWriter ☆☆☆☆

This color inkjet printer is quiet and compact. Produces bright, saturated transparencies. Comes bundled with color-matching software. Slow performance. Printing on clay-coated paper produces dull colors. Three colors come in one ink cartridge, which is convenient but wasteful (cartridge must be replaced when one color runs out). Resolution is 180 dpi. Maximum printable area is 8 x 10.7 inches. Doesn't include PostScript, so Mac processes images for printer. Requires 32-bit QuickDraw. $995. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Oct '91)

Hewlett-Packard PaintWriter XL ☆☆☆☆

This color inkjet printer is quiet. Produces bright, saturated transparencies. Large footprint. Bundled with color-matching software. Fast and networkable. Printing on clay-coated paper produces dull colors. Colors come in separate ink cartridges. Resolution is 180 dpi, and maximum printable area is 10.7 x 16.6 inches. Doesn't include PostScript, so Mac processes images for printer. Requires 32-bit QuickDraw. $2,595. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Oct '91)

ICD Graflex ☆☆½

Graflex is a dot-matrix-printer interface cartridge that emulates the ImageWriter LQ for maximum capability. Lacks special features of custom printer-driver software. No support for inkjet or laser printers. No network support. Requires Macintosh Plus or later and dot-matrix printer. $99.95. ICD, Inc., 1220 Rock St., Rockford, IL 61101. 815-968-2228. (July '92)

Kodak Diconix Color 4 ☆☆½

Diconix Color 4 is a quiet, compact, affordable 192-dpi color inkjet printer with poor print quality and limited print area. Accepts plain paper. Provides serial port but no LocalTalk port. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive. $895. Eastman Kodak (Printer Products Division), 901 Elmgrove Rd., Rochester, NY 14653. 800-255-3434 or 716-253-0740. (May '92)

Kodak Diconix M150 Plus ☆☆☆

The Diconix M150 Plus is a tiny inkjet printer that runs on batteries or AC and fits easily in a briefcase. Slow and doesn't have PostScript's page-description language but comes with ATM and 13 Adobe fonts. Its 192-dpi image quality could be better. Limited printable area. $549. Eastman Kodak (Printer Products Division), 901 Elmgrove Rd., Rochester, NY 14653. 800-255-3434 or 716-253-0740. (Sept '91)

Kodak Ektaplus 7016 ☆☆☆½

This networkable printer doubles as a plain-paper copier. Offers excellent image quality. Installation and setup are simple, and plug-in printer-emulation boards provide flexibility. Can handle simultaneous printing from networked Macs and PCs, even while being used as a copier. Can't attach SCSI hard disk to store additional fonts. Good performance with text files and simple graphics but bogs down severely with complex PostScript images. Comes with two letter-sized, 250-sheet paper trays. Includes 35 Adobe outline fonts. Version 1.4.3 reviewed. Configured for PostScript and AppleTalk, $7,190. Eastman Kodak (Printer Products Division), 901 Elmgrove Rd., Rochester, NY 14653. 800-255-3434 or 716-253-0740. (Nov '91)

Kodak XL7700 ☆☆☆☆½

The XL7700 continuous-tone color printer creates hard copy that looks as good as the original scanned photo. Although it's a bit pricey, the XL7700 establishes a new standard for color printing. By using a technique called dye sublimation, the printer blends colors between adjacent pixels to generate realistic images. The printer requires expensive color media. $24,895. Eastman Kodak Co., 343 State St., Rochester, NY 14650. 800-242-2424 or 716-724-4000. (Jan '91) ★ '90 Eddy

Kyocera Q-8010 ☆☆☆

This PostScript-clone laser printer is fast with text but slow with graphics. Intelligent port and emulation switching among simultaneously active serial, parallel, and LocalTalk ports. The optional 1,000-sheet paper tray is useful for large, busy offices or big printing jobs. Printer includes 47 built-in Bitstream Type B fonts. $4,995; 1,000-sheet paper tray, $895. Kyocera Electronics, Inc., 100 Randolph Rd., Somerset, NJ 08875. 800-621-6777 or 908-560-3400. (Sept '91)

LaserMaster 1000 ☆☆☆

The LaserMaster 1000 is a black-and-white, 1,000-x-400-dpi laser printer that ties up host Macintosh and, as a consequence, is a bit slow. Provides good image quality, especially for halftones. Uses its own NuBus card and LaserMaster ETI interpreter (PostScript clone). Based on Canon SX laser engine. Equipped with one 250-sheet paper tray. Version 3.0 (software) reviewed. Version 3.11 shipping. Requires NuBus-capable Mac. $5,995 direct. LaserMaster Corp., 6900 Shady Oak Rd., Eden Prairie, MN 55344. 800-950-6868 or 612-944-0522. (Feb '92)

Lexmark IBM LaserPrinter 6A ☆☆☆½

This 300-dpi PostScript laser printer is based on a 6-ppm engine but uses a slow 10-MHz 68000 processor. Processor upgrade boosts engine speed to 10 ppm. Uses proprietary PQET smoothing to produce excellent image quality.

MICE RATINGS ☆ ☆½ ☆☆ ☆☆½ ☆☆☆ ☆☆☆½ ☆☆☆☆ ☆☆☆☆½ ☆☆☆☆☆

If upgraded from standard 2 MB of RAM to 6 MB, allows printing at 600 dpi. Standard paper tray accommodates 250 sheets. $2,695; RAM upgrade, $799; processor upgrade, $1,000. Lexmark International, Inc., 740 New Circle Rd., Lexington, KY 40511. 800-358-5835 or 506-232-2000. (Oct '92)

MacFriends QuicKor TS ⭐⭐⭐⭐½

This 300-dpi PostScript Level 2 personal laser printer produces good text quality. Standard 2 MB of RAM is insufficient for complex graphics. Upgradable to 10 MB of RAM. Uses a Sharp engine. Comes with 35 Adobe fonts and a 250-sheet paper tray. Includes SCSI port to attach hard drive for font storage. $1,588. MacFriends, 8235 N. Vancouver Ave., Portland, OR 97217. 800-331-1322 or 503-286-9350. (Sept '92)

Mitsubishi G370-10 ⭐⭐½

This compact thermal-wax-transfer printer has excellent image quality, but version reviewed did not include Mac interface. $5,495. Mitsubishi Electronics America, 5665 Plaza Dr., Cypress, CA 90630. 800-843-2515 or 714-220-2500. (May '90)

Mitsubishi International CHC-S445 ⭐⭐⭐½

The CHC-S445 is a 300-dpi, continuous-tone color printer. Produces near-photo-quality images with realistic colors. Slow. Useful as proofing device in prepress work. Includes external RIP (raster-image processor) to support true Adobe PostScript. Internal dye-sublimation technology heats and transfers colors from continuous CMYK ribbons to a special medium resembling photographic paper. Small footprint. Planned upgrade will have faster built-in RIP, slots for PostScript or clone function cards, and automatic emulation switching among several ports. Requires Macintosh II series or higher, 4 MB of RAM, 32-bit QuickDraw, and a hard drive. $18,750. Mitsubishi International Corp., 701 Westchester Ave., White Plains, NY 10604. 914-997-4999. (May '92)

Mitsubishi S340-10 ⭐⭐⭐⭐

This sublimal-dye-transfer printer creates excellent proofs. Superb print quality. Color range is limited, although the gradients are excellent. Would have received 4.5 mice if Mac interface were included. $13,995. Mitsubishi Electronics America, 5665 Plaza Dr., Cypress, CA 90630. 800-843-2515 or 714-220-2500. (May '90)

NEC Colormate PS Model 80 ⭐⭐⭐⭐½

Offering true PostScript, the Colormate PS Model 80 was the fastest thermal-wax-transfer color printer that we tested for our May '91 lab report. Standard RAM configuration is 8 MB. Halftoning is poor, but overall image quality and color registration are good. The optional hard drive stores printer fonts and helps boost performance. $8,995; optional 20-MB hard drive, $995. NEC Technologies, Inc., 1414 Massachusetts Ave., Boxborough, MA 01719. 800-632-4636 or 508-264-8000. (May '91)

NEC Silentwriter 2 Model 90 ⭐⭐⭐⭐

The fast Silentwriter 2 Model 90 is a true Adobe PostScript printer with a low price. Speed is six pages per minute. The printer uses a Minolta laser engine, has 35 built-in Adobe fonts, and has a 250-sheet paper tray. The toner and drum come in a sealed cartridge. Its only drawback is its large size, exacerbated by the paper tray projecting 10 inches from the front of the printer. $2,495. NEC Technologies, Inc., 1414 Massachusetts Ave., Boxborough, MA 01719. 800-632-4636 or 508-264-8000. (Mar '91)

NEC Silentwriter LC 890XL ⭐⭐½

This PostScript laser printer is fast and flexible but has poor image quality. Offers two paper bins that hold 250 sheets. $5,995. NEC Technologies, Inc., 1414 Massachusetts Ave., Boxborough, MA 01719. 800-632-4636 or 508-264-8000. (Oct '90)

NEC Silentwriter Model 95 ⭐⭐⭐⭐

This 300-dpi PostScript Level 2 personal laser printer is easy to set up. Produces very good text quality. Standard 2 MB of RAM is insufficient for complex graphics. Upgradable to 4 MB of RAM. Uses an NEC Model 90 laser engine. Comes with 35 Adobe fonts. Has a 250-sheet paper tray. $1,749. NEC Technologies, Inc., 1414 Massachusetts Ave., Boxborough, MA 01719. 800-632-4636 or 508-264-8000. (Sept '92)

NewGen Personal Series Turbo PS/300P ⭐⭐

This 300-dpi PostScript-clone personal laser printer is easy to set up. Produces mediocre image quality. Standard 2 MB of RAM is insufficient for some complex graphics. Upgradable to 16 MB. The toner and drum come in a sealed cartridge. Uses a Weitek interpreter and a Canon LX laser engine. Comes with 35 fonts and a flimsy 50-sheet paper tray. An optional 250-sheet tray is available. $1,495. NewGen Systems Corp., 17580 Newhope St., Fountain Valley, CA 92708. 800-888-1689 or 714-641-8600. (Sept '92)

NewGen Personal Series Turbo PS/400P ⭐⭐⭐

This 400-dpi PostScript-clone personal laser printer is easy to set up. Produces excellent image quality. Standard 4 MB of RAM is upgradable to 16 MB. The toner and drum come in a sealed cartridge. Uses a Weitek interpreter and a Canon LX laser engine. Comes with 35 fonts and a flimsy 50-sheet paper tray. An optional 250-sheet tray is available. $1,995. NewGen Systems Corp., 17580 Newhope St., Fountain Valley, CA 92708. 800-888-1689 or 714-641-8600. (Sept '92)

Océ G5241-PS ⭐⭐⭐⭐

Offering true PostScript, the G5241-PS is a fast, compact thermal-wax-transfer color printer. Standard RAM configuration is 5 MB, upgradable to 8 MB. Halftoning is poor, but overall image quality is good. A SCSI port is included for use with third-party hard drives. Best quality when printing black type. $6,990. Océ Graphics USA, Inc., P.O. Box 7169, Mountain View, CA 94039. 800-545-5445 or 415-964-7900. (May '91)

Okidata OL-830 ⭐⭐⭐⭐

This 300-dpi PostScript personal laser printer produces good text quality. Standard 2 MB of RAM is upgradable to 4 MB. Toner cartridge and drum are separate from each other. Bundled with LaserTools software. Uses an OkiLaser 800 laser engine. Comes with 17 built-in fonts and a 200-sheet paper tray. $1,999; required LocalTalk/serial interface, $199. Okidata, 532 Fellowship Rd., Mount Laurel, NJ 08054. 800-654-3282 or 609-235-2600. (Sept '92)

Okidata OL-840 ⭐⭐⭐½

This 300-dpi PostScript personal laser printer produces good graphic quality but poor text quality. Standard 2 MB of RAM is upgradable to 4 MB. Bundled with LaserTools software. Lacks ATM font rasterizer. Toner cartridge and drum are separate from each other. Uses an OkiLaser 800 laser engine. Comes with 35 Adobe fonts. Has a 200-sheet paper tray. $2,599. Okidata, 532 Fellowship Rd., Mount Laurel, NJ 08054. 800-654-3282 or 609-235-2600. (Sept '92)

Orange Micro Grappler 9 Pin ⭐⭐½

The Grappler 9 Pin is a dot-matrix-printer interface cartridge that emulates the ImageWriter LQ for maximum compatibility. Lacks special features of custom printer-driver software. Doesn't support inkjet and laser printers. Uses control panel as well as somewhat quirky LQ driver. Upgraded version includes networking and spooling software that allows multiple users. Version 1.0 reviewed. Version II shipping. Requires Macintosh Plus or later. $139. Orange Micro, Inc., 1400 N. Lakeview Ave., Anaheim, CA 92807. 714-779-2772. (July '92)

Orange Micro Grappler IIsp ⭐⭐⭐½

The Grappler IIsp is a dot-matrix-printer interface cartridge that emulates the ImageWriter LQ for maximum compatibility. Includes networking and spooling software that allows multiple users. Lacks

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

special features of custom printer-driver software. Supports inkjet and laser printers. Uses control panel as well as somewhat quirky LQ driver. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later. $159. Orange Micro, Inc., 1400 N. Lakeview Ave., Anaheim, CA 92807. 714-779-2772. (July '92)

Orange Micro Grappler LS ⭐⭐⭐⭐

The Grappler LS connects Macs to laser and 24-pin letter-quality printers through a serial interface. A cable, driver software, and special fonts combine to make non-PostScript printers compatible with the Mac. Performance with HP-compatible printers is adequate. Has a built-in spooler. Grappler LX (parallel interface) discontinued. Version 1.0 reviewed. Version 1.4 shipping. Requires Macintosh Plus or later, System 6.03 or later, a hard drive, and 1 MB of printer RAM. $99. Orange Micro, Inc., 1400 N. Lakeview Ave., Anaheim, CA 92807. 714-779-2772. (Nov '88) ★ '87 Eddy

Panasonic KX-P4455 ⭐⭐⭐½

This 300-dpi PostScript personal laser printer is fast on straight-text files but slow producing graphics. Adequate image quality. Standard 2 MB of RAM is upgradable to 4 MB. Lacks ATM font rasterizer. Uses Panasonic laser engine. Comes with 39 Adobe fonts and two 250-page paper trays. Toner replenishment system is inconvenient. $2,995. Panasonic, Two Panasonic Way, Secaucus, NJ 07094. 800-742-8086 or 201-348-7000. (Sept '92)

Printware 720 IQ Laser Imager ⭐⭐½

The 720 IQ Laser Imager is a black-and-white, 1,200-x-600-dpi laser printer that's slow and suffers from occasional PostScript incompatibilities. Provides excellent image quality and can print halftones at 85-lpi screen frequency. Uses Printstyle 2.2 interpreter (PostScript clone). Based on Printware 720 IQ laser engine. Includes AppleTalk, serial, and parallel ports. Equipped with one 250-sheet paper tray. With 4 MB of RAM, $7,990 direct. Printware, 1385 Mendota Heights Rd., St. Paul, MN 55120. 800-456-1616 or 612-456-1400. (Feb '92)

QMS ColorScript 100 Model 10 ⭐⭐⭐½

The ColorScript 100 Model 10 was the first four-color thermal-wax-transfer PostScript printer. Fast and simple to install and use. Excellent typographic capability. Standard RAM configuration is 5 MB, upgradable to 8 MB. A SCSI port is included for use with third-party hard drives. Overall image quality was worst among printers we tested for our May '91 lab report. $6,995. QMS, Inc., One Magnum Pass, Mobile, AL 36618. 800-523-2696 or 205-633-4300. (May '91) ★ '89 Eddy

QMS PS-410 ⭐⭐⭐

This 300-dpi PostScript personal laser printer is easy to set up. Standard 2 MB of RAM is insufficient for some complex graphics. Upgradable to 6 MB. The toner and drum come in a sealed cartridge. Uses a Canon LX laser engine. Comes with 45 Adobe fonts. Standard 50-sheet paper tray is flimsy. An optional 250-sheet tray is available. Keeps all three data ports active at all times. Can change emulations on the fly, without user intervention. Bundled with PS Executive Utilities. A good choice for small offices with Macs and PCs. $1,995. QMS, Inc., One Magnum Pass, Mobile, AL 36618. 800-523-2696 or 205-633-4300. (Sept '92) ★ '90 Eddy

QMS PS-810 ⭐⭐⭐½

The QMS PS-810 is an 8-page-per-minute 300-dpi PostScript laser printer that competes with the LaserWriter IINT. Comes with 2 MB of RAM, upgradable to 3 MB. $3,995. QMS, Inc., One Magnum Pass, Mobile, AL 36618. 800-523-2696 or 205-633-4300. (July '88)

QMS PS-810 turbo ⭐⭐⭐½

The fast QMS PS-810 turbo is a good alternative to the LaserWriter IINTX PostScript printer and has equivalent output quality. Comes with one 200-sheet paper tray. A SCSI hard drive can be attached for font storage. $5,495; 40-MB hard drive, $1,495. QMS, Inc., One Magnum Pass, Mobile, AL 36618. 800-523-2696 or 205-633-4300. (Sept '91)

QMS PS-815 MR ⭐⭐⭐½

The QMS PS-815 MR is a black-and-white PostScript laser printer that delivers good image quality. Resolution can be set to 300 or 600 dpi. Based on Canon SX laser engine. Includes AppleTalk, serial, and parallel ports. Equipped with one 200-sheet paper tray. With 6 MB of RAM, $5,495. QMS, Inc., One Magnum Pass, Mobile, AL 36618. 800-523-2696 or 205-633-4300. (Feb '92)

QMS PS-820 turbo ⭐⭐⭐⭐

The fast QMS PS-820 turbo is a good alternative to the LaserWriter IINTX PostScript printer and has equivalent output quality. Comes with two 200-sheet paper trays. A SCSI hard drive can be attached for font storage. $6,495; 40-MB hard drive, $1,495. QMS, Inc., One Magnum Pass, Mobile, AL 36618. 800-523-2696 or 205-633-4300. (Sept '91)

QMS PS-2210 ⭐⭐⭐⭐½

The fast QMS PS-2210 is a good alternative to the LaserWriter IINTX PostScript printer and has equivalent output quality. Can print on B-sized paper. A SCSI hard drive can be attached for font storage. $9,995. QMS, Inc., One Magnum Pass, Mobile, AL 36618. 800-523-2696 or 205-633-4300. (Sept '91)

Qume CrystalPrint Express ⭐⭐⭐⭐

The CrystalPrint Express is a fast PostScript-clone printer. This compact machine offers high-capacity, networkable printing. Its 300-dpi output quality is good. Can't read Adobe Type 1 fonts' built-in hinting; this problem lessens if horizontal resolution is increased to 600 dpi (requiring the 6-MB configuration). No SCSI port is provided for attaching a hard drive. Comes with two 250-sheet paper trays. Replacing consumables is messy. $3,495. Qume Corp., 260 S. Milpitas Blvd., Milpitas, CA 95035. 408-942-4000. (Sept '91)

Qume CrystalPrint Publisher ⭐⭐⭐⭐½

The CrystalPrint Publisher was the first 300-dpi PostScript-clone printer. Based on a RISC microprocessor, it's faster than the LaserWriter IINT. Output quality is excellent, but it can't handle Adobe fonts. Lacks manual feed or envelope capabilities. Requires Macintosh Plus or later. $3,995. Qume Corp., 260 S. Milpitas Blvd., Milpitas, CA 95035. 408-942-4000. (Sept '89) ★ '88 Eddy

RealTech Laser ⭐⭐⭐⭐½

This 300-dpi PostScript Level 2 personal laser printer produces good text quality. Standard 2 MB of RAM is insufficient for complex graphics. Upgradable to 10 MB of RAM. Uses a Sharp engine. Comes with 35 built-in Adobe fonts and has a 250-sheet paper tray. Includes SCSI port to attach hard drive for font storage. Two-year warranty. $1,695. Hardware That Fits, 610 S. Frazier, Conroe, TX 77301. 800-972-3018 or 409-539-3959. (Sept '92)

Seiko CH-5504 ⭐⭐⭐

This thermal-wax-transfer printer has good color range but poor line resolution on transparencies. Compact but slow. Has large usable print area. Includes Adobe Type Manager, Plus Pack, and TypeAlign. $6,995. Seiko Instruments USA, Inc., 1130 Ringwood Ct., San Jose, CA 95131. 408-922-5900. (May '90)

Seiko ColorPoint PS Model 4 ⭐⭐⭐⭐

Using PostScript emulation, the compact, low-priced Seiko ColorPoint PS Model 4 was the slowest thermal-wax-transfer color printer we tested for our May '91 lab report. Standard RAM configuration is 6 MB, upgradable to 34 MB. Overall image quality is good, and it has the largest scalable usable print area on letter-sized paper. Has a SCSI port for use with third-party hard drives. Built-in fonts are from Bitstream. 90-day warranty. $5,999. Seiko Instruments USA, Inc., 1130 Ringwood Ct., San Jose, CA 95131.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

408-922-5900. (May '91)

Seiko ColorPoint PSX Model 14 ⧫⧫⧫½

The ColorPoint PSX Model 14 is a 300-dpi, thermal-wax-transfer color printer. Uses PhoenixPage (PostScript Level 1 clone), which is slower than true Adobe PostScript Level 2. Can do full-bleed tabloid pages and letter-sized output. Uses a wide range of media, but uses it on rolls, which causes waste when installed and when images are trimmed. Small footprint, given its large output. Can use optional iron-on transfer media. $11,799. Seiko Instruments USA, Inc., 1130 Ringwood Ct., San Jose, CA 95131. 408-922-5900. (May '92)

Seiko Personal ColorPoint PS ⧫⧫⧫½

Personal ColorPoint PS is an affordable, 300-dpi, thermal-wax-transfer color printer. Uses PhoenixPage (PostScript Level 1 clone), which is slower than true Adobe PostScript Level 2. Easy to set up and use. Small footprint. Poor printing quality on plain paper. Version PS reviewed. Version PSE shipping. $3,999. Seiko Instruments USA, Inc., 1130 Ringwood Ct., San Jose, CA 95131. 408-922-5900. (May '92)

Seiko Smart Label Printer Plus ⧫⧫⧫½

The Smart Label Printer Plus uses a dynamic thermal print head that can produce text at 78-x-100-dpi or 150-x-200-dpi resolution on 1.125-x-3.5-inch standard 4150 labels. Included DA software offers no frills but is easy to use. Provides simple database capability for sorting and retrieving names and addresses. Can't include graphics on labels without resorting to separate application. No advanced labeling application is bundled. Recommended if your labeling requirements won't grow. Requires Macintosh Plus or later. $259. Seiko Instruments USA, Inc., 1130 Ringwood Ct., San Jose, CA 95131. 408-922-5900. (Feb '92)

Sharp JX-730 Color Ink Jet ⧫⧫½

This inkjet printer is slow and has mediocre print quality. Color range is good, but ink on paper and transparencies smears and bleeds. Resolution is 180 dpi. Maximum printable area is 13.6 x 21 inches. Doesn't include PostScript, so Mac processes images for printer. Requires 32-bit QuickDraw and Mac II or later with Paralink cable (Jonathan Freeman Technologies) or Hurdler II-CPI NuBus card (Creative Solutions). $1,995; cut-sheet feeder, $480; paper-roll feeder, $40; tractor feeder, $290. Sharp Electronics Corp., Sharp Plaza, Mahwah, NJ 07430. 800-237-4277 or 201-529-8200. (Oct '91)

Shinko CHC Series ⧫⧫⧫

This 300-dpi, thermal-wax-transfer printer has excellent image quality but is slow, with poor line resolution on transparencies. Limited color range. Requires Macintosh II series or higher with 2 MB of RAM, System 6.03 or later, and a hard drive. Shinko CHC-445, $4,500; Shinko CHC-745, $8,000; Shinko CHC-445 PS, $5,800; Shinko CHC-745 PS, $9,700. Mitsubishi International Corp., 701 Westchester Ave., White Plains, NY 10604. 914-997-4999. (May '90)

Tektronix ColorQuick ⧫⧫⧫⧫

This color inkjet printer offers relatively high resolution (216 dpi) and comes bundled with powerful color-matching software. Fast. Printing on clay-coated paper produces brilliant colors. Maximum printable area is 11 x 17 inches. Doesn't include PostScript, so Mac processes images for printer. Allows manual, roll, or cut-sheet paper feeds; tractor feeder is optional. Version 2.0 driver reviewed. Version 3.0 shipping. Requires 32-bit QuickDraw and Mac Accessory Kit (software and manuals) plus third-party SCSI cable. $2,345; Mac Accessory Kit, $150; tractor feeder, $300. Tektronix, Inc. (G.P.I.D.), P.O. Box 1000, MS#63-583, Wilsonville, OR 97070. 800-835-6100 or 503-627-7111. (Oct '91)

Tektronix Phaser II PXi ⧫⧫⧫⧫½

The Phaser II PXi is a fast, 300-dpi, thermal-wax-transfer color printer. Offers excellent output, including exceptional transparencies. Uses true Adobe PostScript Level 2. Version 2.0 firmware reviewed. Version 2.08 shipping. $7,995. Tektronix, Inc. (G.P.I.D.), P.O. Box 1000, MS#63-583, Wilsonville, OR 97070. 800-835-6100 or 503-627-7111. (May '92)

Tektronix Phaser III PXi ⧫⧫⧫⧫

The Phaser III PXi is a 300-dpi, phase-change color printer. Very good image quality, with bright colors. Transparency output, however, is mediocre. Uses true Adobe PostScript Level 2. Internal technology is similar to thermal-wax-transfer printers but instead uses dye-impregnated wax that is melted and sprayed on the page. After imaging, the paper is cold-pressed at 3,000 psi to bond the wax securely and smooth its surface. Using plain paper, can print tabloid pages or letter-sized output. Performance was below average when tested without Adobe's final Level 2 driver software. Large footprint. Version 2.0 firmware reviewed. Version 2.08 shipping. $9,995. Tektronix, Inc. (G.P.I.D.), P.O. Box 1000, MS#63-583, Wilsonville, OR 97070. 800-835-6100 or 503-627-7111. (May '92) ★ '91 Eddy

Texas Instruments microLaser Plus PS35 ⧫⧫⧫⧫

This compact 300-dpi PostScript personal laser printer is fast for text and simple graphics. Uses a Sharp engine and has 35 built-in Adobe fonts. Has a 250-sheet tray. Standard 1.5 MB of RAM is insufficient for complex graphics. Upgradable to 4.5 MB. Modular design simplifies upgrading. Excellent on-board help and diagnostics. $1,549. Texas Instruments, Inc., 5701 Airport Rd., Temple, TX 76503. 800-527-3500 or 214-995-2011. (Sept '92)

Texas Instruments microLaser Turbo ⧫⧫⧫⧫

This 300-dpi PostScript Level 2 personal laser printer is very fast. Compact. Uses a Sharp engine. Comes with 35 Adobe fonts and a 250-sheet tray. Standard 2.5 MB of RAM is insufficient for some complex graphics. Upgradable to 10.5 MB. Modular design simplifies upgrading. Excellent on-board help and diagnostics. $1,799. Texas Instruments, Inc., 5701 Airport Rd., Temple, TX 76503. 800-527-3500 or 214-995-2011. (Sept '92)

Varityper VT600P ⧫⧫⧫⧫

The VT600P is a 600-dpi PostScript laser printer that provides camera-ready output when less-than-Linotronic quality is acceptable. Excellent image quality. $16,995. Varityper, 11 Mt. Pleasant Ave., East Hanover, NJ 07936. 800-631-8134 or 201-887-8000. (Oct '90)

Varityper VT600W ⧫⧫⧫⧫

The VT600W is a black-and-white, 600-dpi, PostScript laser printer that's surprisingly fast, considering its near-typesetting resolution. Superb image quality. Based on Panasonic LD laser engine. Includes LocalTalk, RS-422, and RS-232 ports. Equipped with one 200-sheet paper tray. Big and bulky. Needs service contract. Optional AutoToner Replenisher lasts for about 12,000 prints. $14,995; on-site service contract, $1,995; AutoToner Replenisher, $995. Varityper, 11 Mt. Pleasant Ave., East Hanover, NJ 07936. 800-631-8134 or 201-887-8000. (Feb '92)

Xante Accel-a-Writer ⧫⧫⧫

The Accel-a-Writer accelerator board upgrades Apple's LaserWriter II series. Offers about 10-percent speed boost over the LaserWriter IINTX's performance. More than doubles the LaserWriter IINT's performance. Uses PhoenixPage 2.3 (PostScript clone) interpreter. Standard resolution is 600 dpi but also supports 300 dpi or 1,200 x 300 dpi. Built-in fonts are from Bitstream. Two-year warranty. Requires Apple LaserWriter II or HP LaserJet. $1,695 direct with 6 MB of RAM. Xante Corp., 2559 Emogene St., Mobile, AL 36606. 800-926-8839 or 205-476-8189. (Feb '92)

MICE RATINGS ⧫ ⧫½ ⧫⧫ ⧫⧫½ ⧫⧫⧫ ⧫⧫⧫½ ⧫⧫⧫⧫ ⧫⧫⧫⧫½ ⧫⧫⧫⧫⧫

Performance Enhancers

Apple Macintosh IIci Logic Board Upgrade ⭐⭐⭐⭐½

This acceleration option provides a significant performance boost over the IIcx but requires 80-nanosecond or faster RAM SIMMs. Requires Macintosh IIcx. $1,499. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Aug '90)

Apple Macintosh IIfx Upgrade ⭐⭐⭐⭐⭐

Apple's motherboard replacement boasts a 40-MHz CPU and outperforms many other add-ons at reasonable cost. SRAM cache and fast DMA SCSI. Special IIfx DRAM must be purchased (minimum 4 MB). This acceleration option provides excellent performance for Mac II and IIx owners. Requires Macintosh II or IIx and 4 MB of DRAM. $2,599. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Aug '90)

Apple Macintosh SE/30 Logic Board Upgrade ⭐⭐⭐⭐½

This acceleration option offers color QuickDraw and stereo sound features. Capability for 8 MB of RAM distinguishes it from other SE-accelerator options. Requires Macintosh SE (FDHD upgrade and System 6.05 software recommended). $999; FDHD upgrade, $449. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Aug '90)

Apple Quadra 700 Upgrade ⭐⭐⭐⭐½

Apple's Quadra 700 Upgrade is one of the best ways to boost the speed of a stock IIcx or IIci. Offers advantages of a fast SCSI controller, 24-bit color support, a sound-in port, and the often-reassuring Apple seal of approval. Factory-installed. Uses 25-MHz 68040 CPU and a cache-disabled mode for applications not yet compatible with the 68040 processor. $3,499. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (June '92)

Apple Quadra 950 Upgrade ⭐⭐⭐⭐½

Based on the 33-MHz 68040 chip, this upgrade transforms a Quadra 900 into a 950. Boosts overall performance approximately 30 percent. Provides faster Ethernet transfers and video redraw plus 16-bit-color support on two-page displays. FCC Class B-certified. Lacks automatic cache-switching software for applications not yet compatible with the 68040 processor (Cache-Out control-panel freeware is available from ZiffNet/Mac). Requires Quadra 900. $1,499. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Nov '92)

Applied Engineering TransWarp 040 ⭐⭐⭐½

Based on the 33-MHz 68040 chip, this accelerator works with any member of the Mac II family. Occupies one NuBus slot. Boosts a IIci's overall performance approximately 180 percent. Incompatible with parity RAM. Acceleration is always enabled until restart and can then be disabled. Includes automatic cache-switching software for applications that are not yet compatible with the 68040 processor. Requires Macintosh II series; standard Mac II requires 68851 PMMU chip. $3,599. Applied Engineering, 3210 Beltline Rd., Dallas, TX 75234. 800-554-6227 or 214-241-6060. (Nov '92)

ATTO SiliconExpress II ⭐⭐⭐½

SiliconExpress II is a fast SCSI-2 NuBus card that's built for the future (when the Mac will take better advantage of multitasking). Can serve as bus-master card and has coprocessor to speed input/output for the Mac's CPU. Bus-master feature works with AppleShare 3.0. Sustained data-transfer rate is 10 MB/sec. Uses 25-pin external SCSI connector. Supports any hard drive and SyQuest drives. Includes SExpress control panel, SCSI Director, and Express-Mirror. Requires Macintosh II series or higher. $995 direct. ATTO Technology, Inc., 1576 Sweet Home Rd., Amherst, NY 14228. 716-688-4259. (July '92)

DayStar FastCache ⭐⭐⭐⭐⭐

The FastCache is a full-height cache card that fits into the processor-direct slot of a IIci or IIsi. The cache card has 25-nanosecond static RAM that increases the IIci's overall performance by approximately 30 percent. This speed booster is an economical, easy upgrade requiring no software. SANE patch provided for extra speed with some kinds of math computation; INIT and control panel provided allow cache disabling. Benchmark software is bundled. Requires Macintosh IIci, IIsi, or Quadra. $189 to $449. DayStar Digital, Inc., 5556 Atlanta Hwy., Flowery Branch, GA 30542. 800-962-2077 or 404-967-2077. (June '91)

DayStar FastCache Quadra 700/900 ⭐⭐⭐⭐

This moderately priced 128K cache card boosts overall performance in a Quadra 700 or 900 approximately 10 percent. Performance increase is usually higher with programs that do heavy math calculation, such as spreadsheets. Easy to install. Incomplete documentation. Requires Quadra 700 or 900. $299. DayStar Digital, Inc., 5556 Atlanta Hwy., Flowery Branch, GA 30542. 800-962-2077 or 404-967-2077. (Nov '92)

DayStar FastCache Quadra 700/900/950 ⭐⭐⭐⭐

This moderately priced 128K cache card boosts overall performance in a Quadra 900 or 950 approximately 10 percent. Performance increase is usually higher with programs that do heavy math calculation, such as spreadsheets. Easy to install. Incomplete documentation. Requires Quadra 700, 900, or 950. $499. DayStar Digital, Inc., 5556 Atlanta Hwy., Flowery Branch, GA 30542. 800-962-2077 or 404-967-2077. (Nov '92)

DayStar PowerCache ⭐⭐⭐⭐

The PowerCache accelerated cache card almost doubles the speed of a IIci under some conditions. Available for a 40- or 50-MHz 68030 CPU. A 68882 FPU is available for this card. The FPU is helpful for math-intensive applications such as CAD, 3-D rendering, and financial modeling. Installation is easy, and the card's setup is managed via control-panel software. Includes second PDS for other cards. Acceleration can't be disabled without removing card, but cache can be disabled with software. Requires Macintosh IIci or (with adapter) Classic, SE, SE/30, LC, or II series. $479 to $1,599; adapter, $49. DayStar Digital, Inc., 5556 Atlanta Hwy., Flowery Branch, GA 30542. 800-962-2077 or 404-967-2077. (June '92) ★ '91 Eddy

Fusion Data TokaMac ci ⭐⭐⭐⭐

Installed in a Mac IIci, the TokaMac ci delivers raw performance right up there with the Quadra 700. Some software is not compatible with the 25-MHz 68040 CPU, but included software can disable acceleration and the CPU's cache. Requires Macintosh IIci. $2,595 (or $1,945 direct). Fusion Data Systems, 8920 Business Park Dr., Ste. 350, Austin, TX 78759. 800-285-8313 or 512-338-5326. (June '92)

Fusion Data TokaMac II FX 33 ⭐⭐⭐⭐½

Based on the 33-MHz 68040 chip, this upgrade more than doubles a IIfx's performance to approximately 110 percent of a Quadra 950's. Uses both the PDS and a NuBus slot. Includes 128K CPU cache and high-speed NuBus controller. Lacks write-through mode, but acceleration can be disabled without restarting. Includes automatic cache-switching software for applications not yet compatible with the 68040 processor. Incomplete documentation. Requires Macintosh IIfx and installation by vendor. $3,995. Fusion Data Systems, 8920 Business Park Dr., Ste. 350, Austin, TX 78759. 800-285-8313 or 512-338-5326. (Nov '92)

Fusion Data TokaMac LC ⭐⭐⭐⭐

Installed in a Mac LC, the TokaMac LC is a PDS card

that delivers raw performance equivalent to that of a IIfx. Some software is not compatible with the 25-MHz 68040 CPU, but included software can disable acceleration and the CPU's cache. Requires Macintosh LC or LCII. $2,495 (or $1,895 direct). Fusion Data Systems, 8920 Business Park Dr., Ste. 350, Austin, TX 78759. 800-285-8313 or 512-338-5326. (June '92)

Fusion Data TokaMac SX ↕↕↕↕

Installed in a Mac SE/30 or IIsi, the TokaMac SX is a PDS card that delivers more than triple the Mac's normal performance. Some software is not compatible with the 25-MHz 68040 CPU, but included software can disable acceleration and the CPU's cache. Requires Macintosh IIsi or SE/30. $2,595 (or $1,945 direct). Fusion Data Systems, 8920 Business Park Dr., Ste. 350, Austin, TX 78759. 800-285-8313 or 512-338-5326. (June '92)

iir Cache Card 32 ↕↕↕↕½

The iir Cache Card 32 is a half-height cache card that fits into the IIci's processor-direct slot. The cache card has 32K of 25-nanosecond static RAM that increases the IIci's overall performance by approximately 30 percent. This speed booster is an economical, easy upgrade requiring no software. Because no control panel software is provided to allow cache disabling, if any software proves incompatible, the only option is to remove the cache card temporarily. Requires Macintosh IIci. $325. Impulse Technology, 210 Dahlonega St., Ste. 204, Cumming, GA 30130. 404-889-8294. (June '91)

Impulse Performance/040 ↕↕↕½

Based on the 33-MHz 68040 chip, this accelerator works with any member of the Mac II family. Occupies one NuBus slot. Boosts a IIci's overall performance approximately 180 percent. Incompatible with parity RAM. Acceleration is always enabled until restart and can then be disabled. Includes automatic cache-switching software for applications not yet compatible with the 68040 processor. Requires Macintosh II series; standard Mac II requires 68851 PMMU chip as well. $2,399. Impulse Technology, 210 Dahlonega St., Ste. 204, Cumming, GA 30130. 404-889-8294. (Nov '92)

MacProducts '030 RailGun-25 MHz ↕↕↕½

This reliable accelerator has the same basic design as the Novy Quik30/Plus-33MHz. Limited SCSI throughput. Supports the Mac 128K, 512K, 512Ke, Plus, SE, and Classic. Without FPU, $599 direct; with FPU, $699; for Plus and Classic, add $99. MacProducts USA, Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (Aug '90)

Micron Xceed IIci ↕↕↕↕↕

The Xceed IIci is a full-height cache card that fits into the IIci's processor-direct slot. The cache card has 128K of 25-nanosecond static RAM that increases the IIci's overall performance by approximately 30 percent. This speed booster is an economical, easy upgrade requiring no software. SANE patch provided for extra speed with some kinds of math computation; INIT and control panel provided allow cache disabling. Benchmark and Fkeys software are bundled. Requires Mac IIci. $329. Micron Technology, Inc., 2805 E. Columbia Rd., Boise, ID 83706. 800-642-7661 or 208-368-3800. (June '91)

MicroNet NuPORT-II ↕↕↕½

The NuPORT-II is a fast SCSI-2 NuBus card that supports disk arrays. Sustained data-transfer rate is 4.4 MB/sec. Uses 50-pin external SCSI connector. Supports MicroNet hard drives. Includes MicroNet SCSI Utility and MicroNet QuikMount. Good software features. Requires NuBus-capable Mac. $595. MicroNet Technology, Inc., 20 Mason, Irvine, CA 92718. 714-837-6033. (July '92)

Newer fx/Overdrive ↕↕↕

The fx/Overdrive is a CPU-socket board that boosts performance on a IIfx about 20 percent. Includes a 50-MHz 68030 CPU (clock speed can be reselected in software) and 68882 FPU. Uses 60-ns RAM SIMMs. May not be compatible with all IIfx motherboards. Money-back guarantee. Version I reviewed. Version II shipping. Requires Macintosh IIfx. $850. Newer Technology, 7803 E. Osie St., Ste. 105, Wichita, KS 67207. 800-678-3726 or 316-685-4904. (June '92)

NewLife Accelerator! ↕↕↕↕½

The 68030-based NewLife Accelerator! card can boost a Mac Classic's performance to nearly four times normal processing speed. Performance with optional 68882 FPU chip installed is nearly double that of a Classic II, or equivalent to that of an SE/30. Includes card that clips to the Classic's 68000 CPU plus power supply that attaches inside the Mac's metal chassis. Can hold 16 MB of RAM. Sound output is somewhat distorted, which planned control-panel upgrade should fix along with minor software incompatibilities. Allows interrupt-key disabling of card at startup. Includes SANE patch to help math calculation speed. Affordable alternative to Apple's Classic II upgrade, if you can do without color support and 32-bit-clean ROMs. Version 1.0 reviewed. Requires Macintosh Classic. $529; with optional FPU chip, $599; optional video port (for monochrome monitors), $266. NewLife Computer Corp., 603 March Rd., Kanata, Ontario K2K 2M5 Canada. 800-663-6395 or 613-592-5080. (May '92)

Novy Systems Quik30/ Plus-33MHz ↕↕↕½

This accelerator gives Mac 512Ke, Plus, or SE owners IIci computing power. Limited SCSI throughput. Requires Macintosh 512Ke, Plus, or SE. With 16-MHz FPU, $785; other configurations available. Novy Systems, 1862 Fern Palm Dr., Edgewater, FL 32141. 800-553-2038 or 904-427-2358. (Aug '90)

Orchid MacSprint II ↕↕↕↕

This accelerator is a good buy. Simple upgrade offers moderate performance increase for little money. There's a control panel that disables cache for incompatible software. Version 2.1 shipping. Requires Macintosh II. $99. Orchid Technology, 45365 Northport Loop W., Fremont, CA 94538. 800-767-2443 or 510-683-0300. (Aug '90)

Perspect Nexus fx ↕↕↕½

The factory-installed Perspect Nexus fx is an upgrade to the original IIfx motherboard. Boosts performance about 40 percent. Voids Apple warranty if it still applies, but Perspect covers entire upgraded motherboard with its own one-year warranty. Uses 60-ns RAM SIMMs. Requires Macintosh IIfx. $1,295 direct. Perspect Systems, Inc., 630 Venice Blvd., Venice, CA 90291. 800-736-1546 or 310-821-7884. (June '92)

PLI QuickSCSI ↕↕↕↕

The QuickSCSI is a fast, affordable SCSI-2 NuBus card. Sustained data-transfer rate is 4.4 MB/sec. Uses 50-pin external SCSI connector. Supports any hard drive and SCSI removable-cartridge drives. Cannot use the Mac's Startup control panel. Includes QuickSCSI Formatter, proprietary extension software, and QuickSCSI Manager. Five-year warranty. Requires NuBus-capable Mac. $399. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (July '92)

Radius Rocket ↕↕↕↕

The original Radius Rocket is a single NuBus accelerator card with a 25-MHz MC68040 CPU and advanced memory-management features. Significantly boosts the host Mac's CPU and video performance. Triples the overall speed of a Mac IIx. Can hold up to 128 MB of RAM, which can be configured as a RAM disk using Maxima software (from Connectix). Has 32-bit processor-direct slot for special-function daughterboards such as disk controllers, high-speed video interfaces, or JPEG compression cards. Rated at 4.5 amps at 5 volts with 8 MB of RAM, the Rocket may overload Macs already running

MICE RATINGS ↕ ↕½ ↕↕ ↕↕½ ↕↕↕ ↕↕↕½ ↕↕↕↕ ↕↕↕↕½ ↕↕↕↕↕

multiple NuBus cards. Acceleration and cache can be disabled by included software. Version 1.0 software reviewed. Version 1.2 shipping. Requires NuBus-capable Mac. $1,999; Rocket 25i (without math coprocessor), $1,499. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (June '92)

Radius Rocket 33 ★★★★

Based on the 33-MHz 68040 chip, this accelerator works with any member of the Mac II family except the IIfx and IIsi. Occupies one NuBus slot. Boosts a IIci's overall performance approximately 180 percent. Supports parity RAM. Acceleration is always enabled until restart and can then be disabled. FCC Class B-certified. Includes automatic cache-switching software for applications not yet compatible with the 68040 processor. Good documentation. Requires Macintosh II series (except IIfx and IIsi). $2,499. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (Nov '92)

Sixty Eight Thousand dash 30fx ★★★½

More than just a CPU accelerator, Sixty Eight Thousand's dash 30fx is a complete, factory-installed rebuild of your IIfx. Finished package is in a lockable, upright metal tower case. Includes 40-MHz 68030 CPU and 68882 FPU, both running at 50 MHz clock speed. Has fast SCSI-2 card and 8 MB of RAM. Performance boost is about 20 percent. Requires Macintosh IIfx. $3,995 direct; more advanced configurations available. Sixty Eight Thousand, Inc., 160 Technology Cir., Scotts Valley, CA 95066. 408-438-1777. (June '92)

Storage Dimensions Data Cannon PDS/FX ★★★½

The Data Cannon PDS/FX is a fast SCSI-2 PDS card that's built for the future (when the Mac will take better advantage of multitasking). Can serve as bus-master card and has coprocessor to speed input/output for the Mac's CPU. Bus-master feature works with AppleShare 3.0. Sustained data-transfer rate is 10 MB/sec. Uses 25-pin external SCSI connector. Includes MacinStor Installer and control panel. Works with Storage Dimensions' hard drives and erasable-optical drives. Requires PDS-capable Mac. $859. Storage Dimensions, Inc., 1656 McCarthy Blvd., Milpitas, CA 95035. 408-954-0710. (July '92)

TechWorks Cache Card 64 ★★★★★

The Cache Card 64 is a full-height cache card that fits into the IIci's processor-direct slot. The cache card has 64K of 25-nanosecond static RAM that increases the IIci's overall performance by approximately 30 percent. This speed booster is an economical, easy upgrade requiring no software. SANE patch provided for extra speed with some kinds of math computation; INIT and control panel provided allow cache disabling. Requires Macintosh IIci. $269. Technology Works, Inc. (TechWorks), 4030 Braker Lane W., Ste. 350, Austin, TX 78759. 800-926-3148 or 512-794-8533. (June '91)

Total Systems Gemini 020 ★★★★

This accelerator has complex installation. Recommended GemKit option speeds SCSI throughput on Plus. Can be upgraded to 68030. Cost-effective and speedy for Mac Plus. Requires Macintosh 128K, 512K, Plus, or SE. Plus version, $895; Plus version with FPU, $1,045; SE version, $745; SE version with FPU, $935. Total Systems, 1720 Willow Creek Cir., Eugene, OR 97402. 800-874-2288 or 503-345-7395. (Aug '90)

Total Systems Gemini 030 ★★★★½

This accelerator has fast 68030/68882 chips and high clock speed. Complex installation. GemKit option speeds SCSI throughput on Plus. Can boost Plus performance past that of a IIci. Requires Macintosh 128K, 512K, Plus, or SE. Plus version, $1,895; Plus version with FPU, $2,395; SE version, $1,695; SE version with FPU, $2,195. Total Systems, 1720 Willow Creek Cir., Eugene, OR 97402. 800-874-2288 or 503-345-7395. (Aug '90)

Total Systems Magellan 040 ★★★★

The Magellan 040 is a CPU accelerator that installs as a PDS card. More than triples the performance of a IIsi. Uses 25-MHz 68040 CPU but no FPU. Has poor documentation. Included software can disable acceleration and CPU's RAM cache. Requires Macintosh SE/30, IIci, IIsi, or LC. $2,249 direct. Total Systems, 1720 Willow Creek Cir., Eugene, OR 97402. 800-874-2288 or 503-345-7395. (June '92)

Total Systems QuickCache IIci ★★★★★

The QuickCache IIci is a full-height cache card that fits into the IIci's processor-direct slot. The cache card has 128K of 25-nanosecond static RAM that increases the IIci's overall performance by approximately 30 percent. This speed booster is an economical, easy upgrade requiring no software. SANE patch provided for extra speed with some kinds of math computation; INIT and control panel provided allow cache disabling. Benchmark and Fkeys software are bundled. Requires Macintosh IIci. $269. Total Systems, 1720 Willow Creek Cir., Eugene, OR 97402. 800-874-2288 or 503-345-7395. (June '91)

UR Micro MacCache 64 ★★★★½

The MacCache 64 is a full-height cache card that fits into the IIci's processor-direct slot. The cache card has 64K of 25-nanosecond static RAM that increases the IIci's overall performance by approximately 30 percent. This speed booster is an economical, easy upgrade requiring no software. INIT and control panel provided allow cache disabling. Requires Macintosh IIci. $199. UR Micro, 1659 N. Forest Rd., Williamsville, NY 14221. 800-876-4276 or 716-689-1600. (June '91)

UR Micro MacCache LP32 ★★★★½

The MacCache LP32 is a half-height cache card that fits into the IIci's processor-direct slot. The cache card has 32K of 25-nanosecond static RAM that increases the IIci's overall performance by approximately 30 percent. This speed booster is an economical, easy upgrade requiring no software. INIT and control panel provided allow cache disabling. Requires Macintosh IIci. $189. UR Micro, 1659 N. Forest Rd., Williamsville, NY 14221. 800-876-4276 or 716-689-1600. (June '91)

Programming & Systems

101 Scripts and Buttons for HyperCard ★★★½

101 Scripts and Buttons for HyperCard is a collection of scripts, buttons, fields, graphics, utilities, XCMDs, XFCNs, icons, cursors, and more for creating HyperCard stacks. Version 1.1 reviewed. Requires Macintosh Plus or later, HyperCard, and a hard drive. $49.95. Components Software, P.O. Box 201, Rocky Hill, NJ 08553. 800-633-4252 or 609-497-4501. (June '89)

AAIS Prolog ★★★★

AAIS Prolog is a fast standard Prolog with excellent debugging and error handling. Good for serious program development. Poor documentation. Version 1.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later with 2 MB of available RAM, a hard drive, and System 6.03 or later. $598 direct; educational and volume discounts available. Advanced AI Systems, P.O. Box 39-0360, Mountain View, CA 94039. 415-948-8658. (Mar '87)

Acknowledge ★★★

Acknowledge is a combination communications program and interpreted-language system. Lets advanced programmers create customized applications that accomplish many telecommunications tasks — from automatically picking up E-mail to communicating with VAXes. Version 1.0 reviewed. Requires Macintosh Plus or later (hard drive recommended). $199. Prometheus Products, Inc., 9524 S.W.

Tualatin Sherwood Rd., Tualatin, OR 97062. 800-477-3473 or 503-692-9600. (Jan '89) ★ '88 Eddy

Apple A/UX ↕↕↕↕½

Apple's implementation of UNIX for the Mac offers the best features of the Mac interface and operating system along with full UNIX functionality. We found only a few minor bugs, which are being fixed by aggressive maintenance upgrades. A/UX is now getting full tech support from Apple. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh with 68030 CPU (or 68020 and PMMU), 4 MB of RAM, and 80-MB hard disk (IIfx with 20 MB of RAM and largest hard drive you can afford recommended). CD-ROM and basic documentation, $709. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Jan '91)

AppMaker ↕↕↕↕½

Using a familiar, object-oriented drawing environment, AppMaker lets you design and edit user-interface elements for powerful Mac applications. Generates code automatically and supports MPW C and Pascal, THINK C and Pascal, TCL, A/UX, C++, and MacApp. Optional add-ons include support for Modula-2, XVT, and Language Systems FORTRAN. Version 1.1 reviewed. Version 1.5 shipping. Requires Macintosh Plus or later with System 6.03 or later; hard drive recommended. $295; site licenses available. Bowers Development, 97 Lowell Rd., Concord, MA 01742. 508-369-8175. (Oct '90)

Authenticate and Mutate ↕↕↕↕

Authenticate and Mutate are HyperCard extensions. Authenticate is an XFCN that lets you control the contents entered into all fields. It also lets you set the error response — great for database creators. Mutate contains XFCNs for formatting text fields. Versions reviewed: Authenticate, 2.4; Mutate, 1.0. Requires HyperCard 1.2 or later or 4th Dimension. $125. SoftStream International, Inc., 10 Twin Ponds Dr., S. Dartmouth, MA 02748. 800-262-6610 or 508-991-4011. (June '90)

Cause ↕↕

Cause is a database-programming environment designed for nonprogrammers. Nonstandard formats. Unable to create a true Mac interface. Projects are portable between Mac and PC versions. Version 2.1 reviewed. Version 2.13 shipping. Requires Macintosh Plus or later with System 6.03 or later. $295. Pluma Software, 116 E. Greenway, Ste. 101, Mesa, AZ 85203. 602-969-9441. (June '92)

CMaster ↕↕↕↕↕

This inexpensive, indispensable add-on substantially enhances the minimal editing environment in Symantec's Think C: It adds several menus and an icon bar that provides a large, varied set of functions. Highly recommended for serious C programmers. Version 1.05 reviewed. Version 1.09 shipping. Requires Think C and System 6.05 or later. $69.95 direct. Jersey Scientific, Inc., 545 Eighth Ave., 19th floor, New York, NY 10018. 212-736-0406. (Aug '92)

CompileIt! ↕↕↕↕↕

CompileIt! is an excellent HyperTalk compiler that creates and then either exports or installs XCMDs and XFCNs. Programming language is HyperTalk. Fast. Creates XCMDs that work with HyperCard, SuperCard, Authorware, Macromedia Director, and other programs. Has easy-to-use debugging tool, DebugIt! Manual is good but requires some real programming experience beyond HyperTalk. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later with 2 MB of available RAM, HyperCard, and a hard drive. $149. Heizer Software, P.O. Box 232019, Pleasant Hill, CA 94523. 800-888-7667 or 510-943-7667. (Feb '92)

ConvertIt! ↕↕↕↕

ConvertIt! does an excellent job of converting older, simple HyperCard stacks to a format usable by ToolBook, a Windows (PC) hypermedia product. Has some conversion problems with scripts, icons, bit-mapped graphics, type fonts, sounds, XCMDs, XFCNs, and field numbers. The resulting files will be much larger in ToolBook format than when compacted in HyperCard. Version 1.2 reviewed. Version 1.5 shipping. Requires Macintosh Plus or later, a 386-based PC with 4 MB of RAM, and a way to perform Mac-to-PC text transfer (if Mac has no SuperDrive to write to 3.5-inch PC disks). $199. Heizer Software, P.O. Box 232019, Pleasant Hill, CA 94523. 800-888-7667 or 510-943-7667. (June '91)

Course Builder ↕↕↕↕

Course Builder creates standalone educational applications. This easy-to-learn dedicated programming language uses blocks and arrows. Graphics, animation, and sound can be integrated. Version 2.0 reviewed. Version 4.0 shipping. Requires Mac Plus or later with 2 MB of RAM and a hard drive. $1,495. TRI (TeleRobotics International, Inc.), 7325 Oak Ridge Hwy., Ste. 104, Knoxville, TN 37931. 615-690-5600. (Oct '87)

Debugger V2 and MacNosy ↕↕↕↕½

The Debugger V2 is a runtime debugger; MacNosy is a well-established global interactive decompiler. These powerful tools are not aimed at casual users. The Debugger is great if you have two screens available. A new feature is its IBS (Interactive Build System), which can save a great deal of testing time. Both parts of the package work well with all common environments, including THINK Pascal and C and all flavors of MPW (Macintosh Programmer's Workshop). The manual can be confusing. Version 1.5 reviewed. Version 2.45 shipping. Requires 2 MB of RAM and System 6.03 or later; hard drive recommended. $350. Jasik Designs, 343 Trenton Way, Menlo Park, CA 94025. 415-322-1386. (July '90)

Dialoger Professional ↕↕↕↕

Dialoger Professional is a great HyperCard utility for programmers. Easy-to-master palette-based interface lets you build complex dialog boxes. Virtually all the power of the Mac's Dialog Manager is available. Greatly improves appearance and functionality of stacks. An upgrade, WindowScript, is now available. Version 1.02 Dialoger Pro reviewed. Version 1.0 WindowScript shipping. Requires Macintosh Plus or later, System 6.05 or later, and HyperCard 2.0v2; hard drive recommended. $149. Heizer Software, P.O. Box 232019, Pleasant Hill, CA 94523. 800-888-7667 or 510-943-7667. (Feb '90)

ExperCommon LISP ↕↕↕½

ExperCommon LISP is a LISP development system. Not fully Common LISP-compatible. Creates good compiled code and stand-alone applications. Version 1.0 reviewed. Version 2.2 shipping. Requires Macintosh Plus or later. $995; for Mac II series, $1,195. ExperTelligence, Inc., 5638 Hollister Ave., Goleta, CA 93117. 805-967-1797. (Aug '87)

ExperProlog II ↕↕↕

ExperProlog II is a Prolog based on the Prolog II standard. Handles infinite trees and allows user-defined functions that operate conditionally. Has nonstandard Mac interface. Poor documentation. Version 2.4 shipping. Requires Mac Plus or later. $495. ExperTelligence, Inc., 5638 Hollister Ave., Goleta, CA 93117. 805-967-1797. (Mar '87)

Frontier ↕↕↕↕½

Frontier is an innovative scripting tool that lets you create or control utilities for managing the Mac desktop. Similar to batch files on DOS machines, Frontier scripts act like handy miniprograms to work with the Finder or to link functions of IAC-aware applications. Several sample scripts are included, and others can be downloaded from on-line services. Frontier's programming language, UserTalk, derives from C and is somewhat more difficult to master than HyperTalk. Not for careless novices or for true applications programming,

MICE RATINGS ↕ ↕½ ↕↕ ↕↕½ ↕↕↕ ↕↕↕½ ↕↕↕↕ ↕↕↕↕½ ↕↕↕↕↕

but perfect for power users who need to automate complex systems. Version 1.0 reviewed. Requires 1 MB of available RAM and System 7. $249. UserLand Software, 400 Seaport Ct., Redwood City, CA 94063. 415-369-6600. (Sept '92)

HookUp! ⭐⭐⭐⭐

HookUp! is an iconic software-programming utility. It teaches the basic concepts of programming, simple animation, sound manipulation, and even a few more-sophisticated functions. Version 1.01 reviewed. $149. Hip Software Corp., c/o VPL Research, Inc., 656 Bair Island Rd., Redwood City, CA 94063. 415-306-1150 or 415-361-1710. (Jan '91)

HyperAnimator ⭐⭐⭐⭐

HyperAnimator lets you create talking heads for HyperCard stacks, using MacinTalk or digitized sound resources. Easy to implement for those who know HyperCard well. Version 1.0 reviewed. Version 1.5.2 shipping. Requires Macintosh Plus or later and HyperCard. $199.95. Bright Star Technology, Inc., 325 118th Ave. S.E., Ste. 300, Bellevue, WA 98005. 206-451-3697. (Feb '89)

HyperBASIC ⭐⭐⭐½

HyperBASIC (formerly from Teknosys) is a stand-alone XCMD-compiler application. You must be able to program in BASIC to use it. Its BASIC is pretty standard and gives access to 352 Toolbox traps. There's no debugging ability worth using, and the manual is poor. This is not a good system for HyperCard XCMD creation. Version 1.05 reviewed. Version 1.20 shipping. Requires Macintosh Plus or later, HyperCard 1.2.1 or later, and a hard drive. $99. System Technology Corp., 1860 Fern Palm Dr., Edgewater, FL 32141. 800-638-4784 or 904-428-0411. (May '90)

HyperBundle ⭐⭐⭐½

HyperBundle is a set of five HyperCard utilities. The most promising is the handy SuperPalette, which manages floating windows and customized check boxes, radio buttons, menus, and other interface goodies. The other stacks provide sophisticated control of icons, scripts, and access to non-HyperCard files and applications. Version 2.0 reviewed. Requires Macintosh Plus or later and HyperCard 2.0. $249. Components Software, P.O. Box 201, Rocky Hill, NJ 08553. 800-633-4252 or 609-497-4501. (Nov '91)

HyperCard ⭐⭐⭐⭐½

Although it lacks real support for color and object graphics, HyperCard 2.0 is a huge improvement over earlier versions. There are some nice additions to graphics and scripting capabilities. Text formatting, text handling, and printing are significantly improved. More than one stack can now be open at a time, and windows can be resized. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later with System 6.05 or later, 2 MB of RAM, and a hard drive. Development Kit, $199. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (Dec '90) ★ '87 Eddy

HyperDA ⭐⭐⭐⭐

HyperDA lets you browse through HyperCard stacks via a DA. Lets 512K Macs access stackware. Doesn't support global variables. Version 1.22 reviewed. Version 2.1 shipping. Requires Macintosh 512K or later. $129; upgrade, $29. Symmetry Software Corp., 8603 E. Royal Palm Rd., Ste. 110, Scottsdale, AZ 85258. 800-624-2485 or 602-998-9106. (May '88)

INIThound ⭐⭐⭐⭐

INIThound is a developers' tool that carefully monitors the startup process and reports exactly what transpires. A handy tool for eliminating INIT (extension) conflicts. Simplifies debugging. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later. $129. Cambridge Information Ware, P.O. Box 1296, Cambridge, MA 02238. 617-484-8364. (Mar '90)

Instant-Expert ⭐⭐⭐½

Instant-Expert is an excellent way to learn the mechanics of creating an expert system. The inference engine (which ultimately finds the answer) is visible. Interface is weak. Version 2.0 shipping. $69.95. Human Intellect Systems, 3261 Ash St., Palo Alto, CA 94306. 415-571-5939. (Jan '88)

interFACE ⭐⭐⭐⭐

interFACE is a good tool for building interactive educational software. At first the program seems dedicated to creating animated "talking heads" with facial gestures synchronized to speech or other sounds. However, interFACE lets you build interactive programs, using recorded sounds and bit-mapped graphics. The program can create speech by using text input and MacinTalk or by synchronizing sounds from Farallon's MacRecorder. Version 1.0 reviewed. Requires Macintosh Plus or later with 2 MB of RAM. $499.95. Bright Star Technology, Inc., 325 118th Ave. S.E., Ste. 300, Bellevue, WA 98005. 206-451-3697. (Feb '91)

Just Enough Pascal ⭐⭐⭐⭐

Just Enough Pascal is a Pascal tutorial. It has an excellent manual and 20 well-planned lessons. Good for learning how to program Macs. Requires Macintosh Plus or later, System 6.03 or later, and THINK Pascal 2.0 or later; hard drive recommended. $75. Symantec Corp., 10201 Torre Ave., Cupertino, CA 95014. 800-441-7234 or 408-253-9600. (Sept '89)

Macintosh Common LISP ⭐⭐⭐⭐⭐

Macintosh Common LISP is an excellent development environment with an EMACS-style editor that implements most Common LISP editing and debugging functions. Version 1.21 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, System 6.04 or later (or A/UX), 4 MB of RAM, and a hard drive; CD-ROM drive recommended. $495. APDA (Apple Programmers & Developers Association), P.O. Box 319, Buffalo, NY 14207. 800-282-2732 or 716-871-6555. (Nov '88) ★ '88 Eddy

Masquerade ⭐⭐⭐

Masquerade is a full-featured spreadsheet program that also compiles spreadsheet documents (even from other programs) and from them creates stand-alone applications. These applications can run without the parent program and can't be modified accidently by users. Provides in-cell text editing, integrated charting, linking, and other features. Works well with most but not all Excel 3.0 files, which often contain problematic macros, dialog boxes, commands, and functions. Version 1.1 reviewed. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive. $695. Night Diamonds Software, P.O. Box 1608, Huntington Beach, CA 92647. 714-842-2492. (Mar '92)

Nexpert Object ⭐⭐⭐⭐⭐

Nexpert Object is a powerful C-based expert-system shell for the Mac. The system is rule- and object-based, with an excellent editing interface. The inference engine chains backward and forward, and inheritance is bidirectional between classes and objects. Knowledge bases can be ported to other platforms without rewriting. Not copy-protected but installation is limited to one per package. No Cut and Copy commands. Version 1.1 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.03 or later; hard drive and color monitor recommended. $5,000. Neuron Data, Inc., 156 University Ave., Palo Alto, CA 94301. 800-876-4900 or 415-321-4488. (Sept '89)

Peacock ⭐⭐⭐⭐

Peacock is a single HyperCard utility for importing and exporting text. Has clever interface to assist users in transferring text between HyperCard fields and text files. Can precisely filter and reformat comma- or tab-delimited text files from databases. Handles conditional operations reliably based on comparisons or analysis of imported text. Clearly written manual. Perfect for heavy-duty HyperCard users managing large databases. Version 2.0 reviewed. Version 2.11 shipping. Requires HyperCard 2.0. $69.

Cyan, Inc., P.O. Box 28096, Spokane, WA 99228. 509-468-0807. (Nov '91)

PostShow ⭐⭐⭐½

PostShow is an interactive set of modules that lets programmers see the effects of PostScript code. Operation is straightforward. Adequate speed. Supports the most-common PostScript commands. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later with 2 MB of RAM for use under MultiFinder (hard drive recommended). $224.95; PostShow Professional (22 extra fonts), $294.90. Lincoln & Co., 29 Domino Dr., Concord, MA 01742. 800-223-7469 or 508-369-1441. (Apr '90)

Preditor ⭐⭐⭐

Preditor is a programming editor that performs rectangular editing — it manipulates blocks of text that aren't a full page width. Marred by indifferent performance, an odd interface, and a weak manual. Version 1.0.1 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $120. Evatec, P.O. Box 3792, Reston, VA 22091. 703-255-6999. (Mar '90)

Prograph ⭐⭐⭐⭐

Prograph is a completely visual, object-oriented programming language that automates the generation of 32-bit-clean C code. Programs constructed by connecting special icons; the connecting links represent the way data flows logically in the program. Includes an interpreter (for use during program design) and its own compiler for creating stand-alone applications. Supports System 7, outline fonts, and IAC. Excellent management of Balloon Help coding. Not powerful enough for creating commercial applications but heartily recommended for budding C programmers and in-house corporate developers. Good documentation and support. Version 2.5 reviewed. Requires Macintosh Plus or later, System 6.04 or later, 2 MB of RAM, and a hard drive. $495. TGS Systems Ltd., 2745 Dutch Village Rd., Ste. 200, Halifax, Nova Scotia B3L 4G7 Canada. 800-565-1978 or 902-455-4446. (Oct '92) ★ '89 Eddy

Quintus MacProlog ⭐⭐⭐⭐

Quintus MacProlog is a useful program that includes incremental and optimizing compilers, a graphics-environment package, and C and Pascal submodules. Supports color. Version 2.0 reviewed. Version 4.0 and Quintus Prolog++ shipping. Requires Macintosh Plus or later. $595. Quintus Corp., 2100 Geng Rd., Palo Alto, CA 94303. 415-813-3800. (Feb '88)

Resorcerer ⭐⭐⭐⭐½

This resource-editing tool resembles Apple's (free) ResEdit program but adds many useful, time-saving features. Provides a consistent environment for many editors that are specific to particular resource types. Dialog editor handles design and numbering of dialog-box items efficiently. Streamlined management of Balloon Help helps development of System 7-savvy software. Includes powerful hex/code editor and a wide range of templates. Provides value-converter function that automatically transfers code and other data between different formats. Not worth the money if you're just dabbling in code, but invaluable for serious developers. Version 1.11 reviewed. Requires Macintosh II series or higher and System 6.03 or later. $256. Mathemæsthetics, P.O. Box 156, Chestnut Hill, MA 02167. 617-738-8803. (Dec '92)

ScriptExpert ⭐⭐⭐⭐

ScriptExpert is a HyperTalk helper for constructing HyperCard scripts. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and HyperCard 1.2.5 or 2.0 (package includes software for both versions). $99.95. Components Software, P.O. Box 201, Rocky Hill, NJ 08553. 800-633-4252 or 609-497-4501. (Oct '88)

Spinnaker PLUS ⭐⭐⭐

Spinnaker PLUS is a HyperCard-like development environment. Uses concept of hypertext but with limitations. Good use of object graphics and color. Has unique specialized fields for word-processing and database text. Supports multiple platforms. Version 2.5 shipping. Requires Macintosh Plus or later, System 6.03 or later, and 2 MB of RAM. $495. Spinnaker Software Corp., 201 Broadway, Cambridge, MA 02139. 800-826-0706 or 617-494-1200. (Dec '90)

SuperCard ⭐⭐⭐⭐

SuperCard offers capabilities that HyperCard lacks. An excellent tool for developing animated presentations and other graphically rich applications. Its control over user interface and its ability to produce stand-alone applications distinguish it from most dedicated animation or presentation products. Development environment has improved significantly. Latest version is System 7.0-savvy. Version 1.1 reviewed. Version 1.6 shipping. Requires Macintosh Plus or later, System 6.04 or later, and 2 MB of RAM. $299. Aldus Corp., 411 First Ave. S., Seattle, WA 98104. 800-333-2538 or 206-628-2320. (Dec '90)

Think C ⭐⭐⭐⭐½

Think C (formerly LightspeedC) is an object-oriented programming environment based on the C language. Features rapid turnaround time for development and testing of programs through use of an integrated compiler, linker, and editor. Source-level debugger steps through code to examine variables' values and can save expressions in a data window that can be reused later. Has new optimizer and expanded object extensions with some C++ features. Includes significantly improved, easy-to-learn Think Class Library. Version 5.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later; hard drive recommended. $299. Symantec Corp., 10201 Torre Ave., Cupertino, CA 95014. 800-441-7234 or 408-253-9600. (Aug '92) ★ '88, '91 Eddy

THINK Pascal ⭐⭐⭐⭐⭐

THINK Pascal is at the cutting edge of software development for the Mac. Has full support for OOP (object-oriented programming) and has an exemplary development environment that includes integrated source-level debugging and extraordinarily fast compile-and-link times. Version 3.0 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $249; upgrade, $69. Symantec Corp., 10201 Torre Ave., Cupertino, CA 95014. 800-441-7234 or 408-253-9600. (Sept '90) ★ '90 Eddy

TMON Professional ⭐⭐⭐

This popular low-level debugger displays memory in hexadecimal and ASCII, disassembles code (68000 up to 68040), and displays all blocks in a heap. Sets breakpoints on specific instructions or on specific system calls. Lets you step through applications one instruction at a time while watching registers change as the program executes. Offers excellent trap-record command. Has new window displaying name and format of each piece of memory. Can open any text file on disk, providing easy way to look at source code while debugging. Includes support for dcmds and powerful macro scripting. Configuration can be difficult, and learning curve will intimidate even experienced users. Documentation needs improvement. Version 3.0 reviewed. Requires 2 MB of available RAM. $250. ICOM Simulations, Inc., 648 S. Wheeling Rd., Wheeling, IL 60090. 800-877-4266 or 708-520-4440. (Jan '92)

V.I.P. (Visual Interactive Programming) ⭐⭐⭐⭐

V.I.P. is a unique visual-programming system for creating simple Mac applications. Programs are constructed in a flowchart-type manner. Easy access to most Toolbox routines. Translators are available for THINK C, THINK Pascal, Turbo Pascal, MPW C, and MPW Pascal. Extensions are available for Grid Manager, Speech Manager, Matrix Manager, Advanced Manager 1, and Telecommunications Manager. Version 2.0 reviewed. Version 2.5 shipping. Requires Macintosh Plus or later and System 6.03 or later.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

$149.95. Mainstay, 5311-B Derry Ave., Agoura Hills, CA 91301. 818-991-6540. (June '87)

Wild Things ⌘⌘⌘⌘

Wild Things is a set of 40 XCMDs that also teaches you about XCMDs. Comes on four disks, with two devoted entirely to source code. Code is provided in Pascal (MPW, TML, and Lightspeed), C (MPW and Lightspeed), and FORTRAN (MPW) for each of the 40 XCMDs. Includes HyperCard. Version 1.0 reviewed. Version 1.11 shipping. Requires Mac Plus or later, System 6.03 or later, and a hard drive. $150. Language Systems Corp., 441 Carlisle Dr., Herndon, VA 22070. 800-252-6479 or 703-478-0181. (Dec '89)

Resources

Apple Macintosh Book, The ⌘⌘⌘⌘½

Serious Macintosh users who want one reference book should probably look first at this new edition of Cary Lu's classic. Packed with information delivered in a concise and no-nonsense manner. $24.95. Microsoft Press, One Microsoft Way, Redmond, WA 98052. 206-882-8080. (Dec '92)

Art of Darkness: The After Dark Companion ⌘⌘⌘⌘

To experienced Mac users, Berkeley Systems' After Dark screen saver may be the ultimate in fritterware (yes, it also extends the life of your screen phosphors). You can easily spend hours playing with the modules — covering your screen with underwater toasters or having the mower man chase Boris the cat around your monitor, for example. When you run out of ideas, turn to this entertaining book from Erfert Fenton, who tells you how to create dozens of effects. Includes a disk with nine new modules. $19.95. Peachpit Press, 2414 Sixth St., Berkeley, CA 94710. 800-283-9444 or 510-527-8555. (Dec '92)

Correct Quotes ⌘⌘⌘⌘

Correct Quotes is a user-modifiable database of famous quotes. Good interface. Quickly searches by topic or by author. Not very comprehensive, but you can incorporate new quotes from celebrities such as yourself. Needs better variety of searchable topics. Version 1.0 reviewed. Requires Macintosh Plus or later, System 5.0 or later, and a hard drive. $49. WordStar International, Inc., 201 Alameda del Prado, Novato, CA 94949. 800-523-3520 or 415-382-8000. (July '92)

Creepy Crawlies ⌘⌘⌘½

Spiders, snakes, bugs, and lizards are the subject of this fascinating and slightly odd CD-ROM. Organized into categories such as Wet Stuff, Killers, Pests, and Strange Habits, each entry includes a brief description of habits and habitat as well as a close-up photograph and a video clip. Good for school projects or just browsing. Version 2.0 reviewed. $149. Educorp Computer Services, 7434 Trade St., San Diego, CA 92121. 800-843-9497 or 619-536-9999. (Dec '92)

Danny Goodman's Macintosh Handbook Featuring System 7 ⌘⌘⌘⌘

HyperCard guru Danny Goodman and designer Richard Saul Wurman have created a guide to using your Mac that goes beyond most handbooks. Visual approach shows — rather than merely describes — the information most users want to know. Format is unusual, but you'll get a lot out of this book. $29.95. Bantam Computer Books, 666 Fifth Avenue, New York, NY 10103. 800-223-6834, ext. 9666 or 212-765-6500. (Dec '92)

Dead Mac Scrolls, The ⌘⌘⌘⌘

Subtitled "How to Fix Hundreds of Hardware Problems Without Going Bankrupt," this book takes the fear out of fixing your Mac yourself. Describes hundreds of symptoms and possible repairs. Compares the cost (in time and money) of fixing your Mac yourself versus seeking outside help. Not a book for beginners. Should appeal to anyone with a little technical savvy and a tight budget. $32. Peachpit Press, 2414 Sixth St., Berkeley, CA 94710. 800-283-9444 or 510-527-8555. (Dec '92)

Design Essentials ⌘⌘⌘⌘⌘

Ambitious new users of Adobe Illustrator or Photoshop need this book. Concise text is direct and practical. Step-by-step illustrations are superb. Describes setting up the optimal system. Also covers details such as creating hand-tinted photographs and special type or 3-D effects. Recommended for professional as well as amateur designers. $39.95. Adobe Press, 11711 North College Ave., Carmel, IN 46032. 800-428-5331 or 317-573-2500. (Dec '92)

Digital Gourmet, The ⌘⌘⌘

For those who have a Mac and a printer within reach of their kitchen, this HyperCard-based collection of more than 1,000 recipes is certainly easy to use. You're not going to find haute cuisine here (the recipes are more in the Spanish-rice and stewed-prunes class), but thorough nutritional data is provided for each recipe, you can mark your favorites, and you can search for recipes by ingredient. $49. Books-On-Disk, 311 Harvard St., Brookline, MA 02146. 617-734-9700. (Dec '92)

Dr. Macintosh ⌘⌘⌘⌘

Subtitled "How to Become a Macintosh Power User," this updated version of Bob LeVitus' popular book offers plenty of tips and hints to help make you more productive. Designed to let you quickly find definitions and recommendations without plowing through pages of text. A must-have for fans of LeVitus' *MacUser* columns. Version "Second Edition" reviewed. $24.95. Addison-Wesley Publishing Co., Inc., 1 Jacob Way, Reading, MA 01867. 617-944-3700. (Dec '92)

Ecolinking ⌘⌘⌘½

Don Rittner's guide to on-line services, databases, and resources is useful for anyone who wants to learn how digital telecommunications can protect the environment. One of the first books we've seen that spotlights the personal computer's role in political activism. $18.95. Peachpit Press, 2414 Sixth St., Berkeley, CA 94710. 800-283-9444 or 510-527-8555. (Dec '92)

Educorp CD-ROM ⌘⌘⌘⌘

Educorp CD-ROM contains more than a gigabyte of shareware, public-domain software, and demoware in 23 categories such as business education, music, and fonts. Has an electronic bulletin-board system. Includes HyperCard 2.1 and QuickTime extension. Version 3.0 reviewed. Version 7.0 shipping. $199 (two-disc set). Educorp Computer Services, 7434 Trade St., San Diego, CA 92121. 800-843-9497 or 619-536-9999. (July '89)

Expanded Books ⌘⌘⌘⌘½

The Expanded Books series includes modern works and classics from authors such as Ken Kesey and Lewis Carroll. A great way to use your PowerBook for leisure reading. Published for use with HyperCard, the series lets you make notes or read annotations. Requires HyperCard 2.1 or later. $19.95 each. The Voyager Company, 1351 Pacific Coast Hwy., Santa Monica, CA 90401. 800-446-2001 or 310-451-1383. (Dec '92)

Family Doctor ⌘⌘⌘

Answering almost 2,000 of the most commonly asked questions about family health, this CD-ROM packs in a lot of information. Describes the action and side effects of commonly prescribed medications. Provides a guided tour of the human body. Uses intimidating medical terminology to categorize information, but there's plenty of useful material to explore. $79.99. Creative Multimedia Corp., 514 N.W. 11th St., Ste. 203, Portland, OR 97209. 800-262-7668 or 503-241-4351. (Dec '92)

FamilyCare ⌘⌘⌘

FamilyCare is a software handbook of childhood diseases from acne and appendicitis to wheezing and yeast infections. The rule-based expert system gives advice based on symptoms. Lacks graphics. Version 1.0 reviewed.

MICE RATINGS ⌘ ⌘½ ⌘⌘ ⌘⌘½ ⌘⌘⌘ ⌘⌘⌘½ ⌘⌘⌘⌘ ⌘⌘⌘⌘½ ⌘⌘⌘⌘⌘

Version "Personal Pediatrician" shipping. Requires Macintosh Plus or later. $59.95. Lundin Laboratories, Inc., 7071 Orchard Lake Rd., Ste. 235, West Bloomfield, MI 48322. 800-426-8426 or 313-851-8282. (Sept '88)

Grolier New Electronic Encyclopedia ★★★★★

This CD-ROM is a clear winner, with 33,000 articles (ten million words) covering lots of up-to-date information. Certainly not all-inclusive, but major subjects generally have at least a few paragraphs of useful data. Minor subjects get a one-paragraph treatment. Innovative design includes many high-quality color maps, animations, famous paintings, photographs, and digitized sounds. Version 1991 Edition 2.0 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later, System 6.07 or later, 2 MB of RAM, and a CD-ROM drive. $395. Grolier Electronic Publishing, Inc., Sherman Turnpike, Danbury, CT 06816. 800-356-5590 or 203-797-3500. (July '92)

GTV: A Geographic Perspective on American History ★★½

This interactive package, published by the National Geographic Society, includes a HyperCard stack on a floppy and multiple video clips on two videodiscs. Covers American history from before the Revolutionary War to the present. Intended for elementary and junior-high-school students, the stack is primarily a directory of the videodiscs' contents. Video clips are good quality but derive mostly from still images. Relegates the Mac to the role of a simple fast-forward control. If you skip around chronologically, be prepared to swap and flip videodiscs frequently. Requires Macintosh Plus or later, HyperCard, videodisc player, and color TV monitor. $795. Optical Data Corp., 30 Technology Dr., Warren, NJ 07059. 800-524-2481 or 908-668-0022. (Dec '91)

Health: AIDS ★★★★

Published by ABC News Interactive, this interactive package includes a HyperCard navigation stack on a floppy and multiple video clips on a videodisc. Provides basic information about AIDS. Intended for junior- and high-school students, the stack is well designed, accurate, informative, and makes good use of the Mac/videodisc combination. Video-interview clips are engrossing and well edited. Good documentation includes guidebook for teachers. Requires Macintosh Plus or later, HyperCard, videodisc player, and color TV monitor. $495. Optical Data Corp., 30 Technology Dr., Warren, NJ 07059. 800-524-2481 or 908-668-0022. (Dec '91)

HyperAtlas ★★★

HyperAtlas is a HyperCard collection of U.S. and world maps that are networked to stacks containing economic, political, and population data. Version 1.0 reviewed. Requires Macintosh Plus or later, HyperCard, and a hard drive. $99. MicroMaps Software, P.O. Box 757, Lambertville, NJ 08530. 800-334-4291 or 609-397-1611. (Oct '88)

HyperBible ★★★★

HyperBible includes more than nine megabytes of easily searchable Bible text. There are several different ways to find desired material. Has audible pronunciation of more than 400 Bible names. Cluttered and inelegant interface. Version 2.0 reviewed. Version 2.04 "Thompson Chain" shipping. Requires Macintosh Plus or later with System 6.05 or later and a hard drive. $149. Kirkbride Technology, P.O. Box 606, 335 W. 9th St., Indianapolis, IN 46206. 800-428-4385 or 317-633-1900. (July '92)

Mac Made Easy, The ★★★

Martin Matthews' book is a pared-down manual that gets new Mac users up and running fast. Definitely recommended if you already have Mac experience. Covers all the basics. Includes useful introduction to all Mac models available at time of book's most recent revision. $19.95. Osborne/McGraw-Hill, 2600 Tenth St., Berkeley, CA 94710. 510-548-2805. (Dec '92)

Mac Shareware 500, The ★★★½

On-line services such as CompuServe and America Online and user groups are terrific sources of free (or nearly free) public-domain software. This comprehensive guidebook by Ruffin Prevost and Rob Terrell explains just what shareware is and how you can get it. A trial membership to America Online and four disks containing shareware programs are included. $39.95. Ventana Press, P.O. Box 2468, Chapel Hill, NC 27515. 919-942-0220. (Dec '92)

MacGlobe ★★★½

MacGlobe is part world atlas and part almanac. Provides an extensive, annually updated database of information on 190 countries. Includes substantial map-creation and reporting capabilities at the country and regional level. Export and printing capabilities are very weak, but on-screen interactive maps display country outlines, important statistics, national flags, information on city locations and topographic elevations, geographic and tourist features, and a special point-and-click button plays a digitized national anthem. Supports simple color-coding and dithered patterns. Database needs more thorough fact-checking but provides excellent value for K-12 education market. Version 1.1 reviewed. Requires Macintosh Plus or later with System 6.03 or later; color display system recommended. $79. Brøderbund Software, Inc., 500 Redwood Blvd., P.O. Box 6125, Novato, CA 94948. 800-521-6263 or 415-382-4400. (July '92)

Macintosh Dictionary, The ★★★½

Mac users are as guilty of using jargon and TLAs (three-letter acronyms) as any other group is, so if you're not up to speed on the lingo, get a copy of this dictionary. Written in a casual, easy-to-read style, *The Macintosh Dictionary* covers the basics and is small enough to tote along to conferences and other meetings. $10.95. Addison-Wesley Publishing Co., Inc., 1 Jacob Way, Reading, MA 01867. 617-944-3700. (Dec '92)

Otzar Plus ★★★★½

This substantial HyperCard stack of Jewish wit and wisdom is fun and informative. Has well-designed interface. Database needs more topics and better explanation of stack icons. Version 1.0 reviewed. Requires HyperCard. $39.95. Davka Corp., 7074 N. Western Ave., Chicago, IL 60645. 312-465-4070. (July '92)

Picture It! ★★★½

This foreign-language picture dictionary contains more than 1,000 words. Lets you develop your foreign vocabulary (Spanish, French, Italian, and German are available) by presenting pictures, words, and sounds on your Mac's screen. Creates custom tutorials by grouping certain flash cards together or by adding your own words. Word definitions and help are available in both English and the foreign language. $69.95 each. Penton Overseas, 2091 Las Palmas Dr., Ste. A, Carlsbad, CA 92009. 619-431-0060. (Dec '92)

Point of View ★★★★

Point of View is a dynamic history program that makes exploring American history interesting and fun. Comes with more than 2,000 pages of documents, hundreds of graphics, and 140 census tables, with tools for searching, accessing, and displaying the data. Contains many typographical errors and does not cite source quotations for any of its documents. Version 1.0 reviewed. Requires Macintosh Plus or later (hard drive recommended). $199.95. Scholastic Software, 2931 E. McCarty St., P.O. Box 7502, Jefferson City, MO 65102. 800-541-5513. (Nov '90)

Roger Ebert's Movie Home Companion ★★★★

This CD-ROM includes a ton of information about movies released between 1986 and 1992. Lacks trinkets such as theme music, QuickTime clips, and interactive doodads. Movie reviews have star ratings. Includes full text of interviews Ebert has conducted with stars and directors. Can

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★

search for phrases and do Boolean searches (find Woody Allen and Diane Keaton but not Mia Farrow). $79.95. Quanta Press, 1313 Fifth St. S.E., Ste. 208C, Minneapolis, MN 55414. 612-379-3956. (Dec '92)

Shakespeare ★★★★½

What's stored in this CD-ROM are all the Bard's sonnets and poems plus his plays in both modern and Queen's English. Includes CMC's wickedly fast rapid-access DiscPassage software. This and other CMC discs (such as Audubon's Birds and Mammals, various medical resources, and even Sherlock Holmes) use only the seemingly unsophisticated Geneva type font — which every Mac operating system includes. $29.99. Creative Multimedia Corp., 514 N.W. 11th St., Ste. 203, Portland, OR 97209. 800-262-7668 or 503-241-4351. (July '92)

Sports Illustrated CD-ROM Sports Almanac ★★★★

Review the sports highlights and low moments of 1991 with this glitzy CD produced by *Sports Illustrated* magazine and its sister company Warner New Media. Has plenty of statistics backed up by excellent photography and overview articles on a range of sports. A good gift item for sports freaks (but don't expect to see any swimsuits). Version 1991 (year) reviewed. $59.99. Warner New Media, 3500 W. Olive Ave., Ste. 1050, Burbank, CA 91505. 818-955-9999. (Dec '92)

State Data ★★★½

State Data is a series of HyperCard stacks (a Microsoft Works file is also available) that present information about the 50 states. These well-designed and -integrated documents can be a useful resource for teachers. Data should be more up-to-date. Sports focus is entirely on professional teams. Requires HyperCard or Microsoft Works. $40. DataDisc International, 1430 Willamette, Ste. 236, Eugene, OR 97401. 503-686-9859. (July '90)

Sun Clock ★★★

A little like System 7's Map DA, Sun Clock tells you what time it is anywhere in the world. Places a readout on the screen that tells time in another time zone. Useful if you make a lot of overseas phone calls. Can't simultaneously track more than one time zone. Version 3.0 reviewed. $40; modules for After Dark and Pyro! screen savers, $20 each. MLT Software , P.O. Box 19787, Portland, OR 97280. 503-452-0652. (Dec '92)

Time Table of History: Science and Innovation ★★★½

Time Table of History: Science and Innovation presents events from the history of technology on a HyperCard-based CD-ROM. Text, graphics, and sound are nicely integrated, and related events are well linked. Includes HyperCard. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, HyperCard 2.0 or later, and a CD-ROM drive. $125.95. Xiphias, 8758 Venice Blvd., Los Angeles, CA 90034. 310-841-2790. (May '89)

Vietnam War, The ★★★★★

The Vietnam War is a stack that uses HyperCard fully and brilliantly to provide an excellent history through the use of sounds, animation, generally superior graphics, and unobtrusive but extensive links. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later, HyperCard 2.0, and a hard drive. $24.95 direct. Regeneration Software, 377 Collado Dr., Scotts Valley, CA 95066. 408-438-5791. (Apr '90)

View from Earth, The ★★★★

This CD-ROM tracks the solar eclipse of July 11, 1991, and provides audiovisual information about the sun, earth, moon, and eclipses in general. If you're planning to fly down to South America to view the November 1994 solar eclipse, this CD-ROM is good preparation. Best used in conjunction with the *Voyage Through the Universe* series from Time-Life Books. $79.98. Warner New Media, 3500 W. Olive Ave., Ste. 1050, Burbank, CA 91505. 818-955-9999. (Dec '92)

Voyager, the Interactive Desktop Planetarium ★★★★½

Voyager, the Interactive Desktop Planetarium, lets you view the sky as a star chart, as a celestial sphere, or as seen from anywhere in the universe. Includes an extensive astronomical database. Terrific learning tool. Version 1.0 reviewed. Version 1.2 shipping. Requires Mac Plus or later and System 6.03 or later. $124.50. Carina Software, 830 Williams St., San Leandro, CA 94577. 510-352-7328. (Sept '89)

Webster's Ninth New Collegiate Dictionary ★★★★½

This CD-ROM includes a complete electronic version of the standard hardcover dictionary. Type can be viewed at any size. Has easy-to-use search engine. Can pronounce selected words, but poor audio fidelity makes comprehension difficult. Version 1.05 reviewed. $199.95. Highlighted Data, Inc., 4350 N. Fairfax Dr., Ste. 450, Arlington, VA 22203. 703-516-9211. (July '92)

Zen and the Art of Resource Editing ★★★★

Apple's ResEdit application is used to create and edit such Mac resources as menus, dialog boxes, and icons. If you've ever wanted to tinker with ResEdit, this guide from the Berkeley Macintosh Users Group is a great place to start. Editors Derrick Schneider, Hans Hansen, and Noah Potkin explain how experienced, careful Mac users can customize their system software. Includes disk containing the latest version of ResEdit. $24.95. Peachpit Press, 2414 Sixth St., Berkeley, CA 94710. 800-283-9444 or 510-527-8555. (Dec '92)

SCANNERS

Abaton 8-bit Apple Scanner Upgrade ★★★★

This upgrade greatly improves the gray-scale capabilities of the Apple Scanner. Requires Macintosh Plus or later and Apple Scanner. $595. Abaton (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (Sept '90)

Abaton Scan 300/GS ★★★½

This 300-dpi monochrome scanner creates good halftone images. Includes ImageStudio software. Requires Macintosh Plus or later. $1,595. Abaton (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (Sept '90)

Agfa Focus II S800GSE ★★★★½

This 8-bit gray-scale-only flatbed scanner has high resolution. Optional, excellent software is highly intuitive. Requires Macintosh Plus or later. $3,750; McView software, $495. Agfa Division, Miles, Inc. (Business Imaging Systems), 200 Ballardvale St., Wilmington, MA 01887. 800-685-4271 or 508-658-5600. (Sept '90)

Agfa Focus S800GS ★★★★

The Focus S800GS is a 400-dpi, 6-bit gray-scale scanner that simulates resolutions up to 800 dpi. It has superior resolution and good halftone quality. Professional-quality software has extensive editing features and printing options. Users requiring 8-bit (256-gray) resolution will need Agfa's Focus II S800GSE. Requires Macintosh Plus or later and McView software. $2,495; McView software, $495. Agfa Division, Miles, Inc. (Business Imaging Systems), 200 Ballardvale St., Wilmington, MA 01887. 800-685-4271 or 508-658-5600. (June '89) ★ '88 Eddy

Apple OneScanner ★★★½

The Apple OneScanner is not state-of-the-art but is adequate for scanner neophytes. The 8-bit gray-scale scanner comes with AppleScan software and HyperScan, written by Bill Atkinson. Also works well with Ofoto software from Light Source. Requires SCSI cables, hard drive, and System 6.03 or later. $1,299. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Sept '90)

AVR 3000/CL Plus ★★★

This 24-bit, 300-dpi, flatbed color scanner has a maximum

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★

image area of 8.5 x 14 inches. Colors are not saturated, and Easy Scan DA software is hard to use. Comes with a SCSI interface and cable. External SCSI termination. Two-year warranty. Bundled with Limited Edition version of Photoshop plus plug-ins for Photoshop and ColorStudio. Maximum software-interpolated resolution is 1,600 dpi for color scans and line art. Requires Macintosh with 24-bit-color display system. $1,890. Advanced Vision Research, Inc., 562 S. Milpitas Blvd., Milpitas, CA 95035. 800-544-6243 or 408-956-0350. (Dec '91)

Barneyscan CIS•3515 ⭐⭐⭐

This 35mm slide scanner is fast and easy to set up. Good image quality. Includes excellent CIS QuickScan software and Photoshop plug-in. Manual focus is difficult to use. Image preview is in gray scale only. Uses NuBus interface card. Requires regular calibration. Requires Macintosh II series or higher, System 6.05 or later, 4 MB of RAM, and a color display system. $4,495. Barneyscan Corp., P.O. Box 14467, Oakland, CA 94614. 510-562-2480. (Nov '92)

Barneyscan CIS•4520RS ⭐⭐⭐⭐

This color film scanner provides excellent prepress-quality images with good resolution and color range. Focus is automatic without manual override. Bundled with excellent QuickScan and CIS Color Access separation software. Large footprint. Supports mounted 35mm slides plus 2.25-x-2.25-inch, 6-x-7-cm, and 4-x-5-inch film. Includes Photoshop plug-in. Requires Macintosh II series or higher, System 6.05 or later, 8 MB of RAM, and a 24-bit color display system. $19,995. Barneyscan Corp., P.O. Box 14467, Oakland, CA 94614. 510-562-2480. (Nov '92)

Chinon DS-3000 ⭐⭐½

This 300-dpi black-and-white overhead scanner has poor resolvability. Good OCR. Ambient lighting is troublesome. Inexpensive but slow. Requires Mac Plus or later. $695. Chinon America, Inc., 660 Maple Ave., Torrance, CA 90503. 800-441-0222 or 310-533-0274. (Sept '90)

Complete PC Half-Page Scanner/400 ⭐⭐½

This hand-held scanner has very good resolution. True 400-dpi scans. Excellent OCR. Version 1.0 reviewed. Version 2.0 shipping. Requires Mac Plus or later and System 6.03 or later. $399. Complete PC, 1983 Concourse Dr., San Jose, CA 95131. 800-634-5558 or 408-434-0145. (Sept '90)

Epson ES-300C ⭐⭐½

This 24-bit, 300-dpi, flatbed color scanner has a maximum image area of 8.5 x 11.7 inches. ScanDo DA software produces unreliable colors. Comes with a SCSI interface and cable. Internal SCSI termination. Bundled with ColorStudio 1.5 and ImageStudio 1.7 plus plug-ins for Photoshop, ColorStudio, and ImageStudio. Maximum software-interpolated resolution is 300 dpi for color scans and 600 dpi for line art. Has color-preview mode. Requires Macintosh with 24-bit-color display system. $1,994 (includes Mac interface kit). Epson America, Inc., 20770 Madrona Ave., Torrance, CA 90503. 800-922-8911 or 310-782-0770. (Dec '91)

Hewlett-Packard ScanJet IIc ⭐⭐⭐⭐½

The ScanJet IIc is a fast, affordable, 400-dpi color flatbed scanner. Provides accurate color rendition and can interpolate to a resolution of 1,600 dpi. Standard resolution is excellent for use in OCR. Software provides time-saving color preview that dynamically displays proposed changes to scanned image. Uses lever instead of removable screw to lock scan head during transport. Bundled DeskScan II software has handy self-installer and makes calibration or contrast correction a breeze. Does not include software plug-ins for Photoshop or ColorStudio. Requires 24-bit color display system. $1,995; automatic sheet feeder, $695; Mac interface kit, $400. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Apr '92)

Hewlett-Packard ScanJet IIp ⭐⭐⭐⭐

This moderately priced gray-scale scanner delivers excellent image quality, especially with the auto-exposure feature. Doesn't require SCSI-interface box. Bundled DeskScan II software is easy to use and lets you calibrate scanner to a specific printer. Bundled DeskPaint software from Zedcor lets you acquire text or images for direct transfer into another application. Flimsy scanner cover can snap off accidentally. Poor documentation and on-line help. Requires 2 MB of available RAM, a hard drive, and System 6.05 or later. $1,095; optional sheet feeder, $395. Hewlett-Packard (Direct Marketing), P.O. Box 58059, MS#511L-SJ, Santa Clara, CA 95051. 800-752-0900 (USA) or 800-387-3867 (Canada). (Nov '92)

Howtek Personal Color Scanner ⭐⭐⭐

This 24-bit, 300-dpi, flatbed color scanner has a maximum image area of 8.5 x 14 inches. Has fast-scan mode for preliminary setup before final scan. Normal-scan mode has better quality but is very slow. Comes with a Centronics NuBus interface and cable. Bundled with Limited Edition version of Photoshop plus Photoshop plug-in. Maximum software-interpolated resolution is 600 dpi for color scans and line art. Software has color-preview mode. Requires NuBus-capable Mac and 24-bit-color display system. $1,295 direct. Howtek, Inc., 21 Park Ave., Hudson, NH 03051. 800-444-6983 or 603-882-5200. (Dec '91)

Howtek Scanmaster ⭐⭐⭐⭐

This color flatbed scanner is very large and slow. Scans at up to 300 dpi. Has powerful color controls in software. Poor OCR. Includes interface kit and Photoshop. Version 1.0 reviewed. Version 3 (400-dpi resolution) shipping. Requires Mac II series or higher with color monitor. $8,195. Howtek, Inc., 21 Park Ave., Hudson, NH 03051. 800-444-6983 or 603-882-5200. (Sept '90)

Howtek Scanmaster 35/II ⭐⭐

This slide scanner has one major appeal: low price. Given its slow scan times, poor color fidelity, and unfriendly software, the savings fail to compensate for overall poor performance. Scans at 2,048 x 3,000 pixels. Images from the scanner are usable only after tweaking with an application such as Photoshop. Version 35/II reviewed. Version 35 Plus shipping. Requires Macintosh II series or higher and color display system. $6,995. Howtek, Inc., 21 Park Ave., Hudson, NH 03051. 800-444-6983 or 603-882-5200. (Sept '90)

La Cie Silverscanner ⭐⭐⭐⭐

This 24-bit, 300-dpi, flatbed color scanner has a maximum image area of 8.5 x 11.7 inches. Colors suffer from Epson scan engine, but powerful software provides complete image control. Bundled with Color It!, ColorStudio 1.5, or complete Photoshop version 2.0; also includes plug-ins for Photoshop, ColorStudio, Digital Darkroom, ImageStudio, and RagTime. Comes with a SCSI interface and cable. Internal SCSI termination. Maximum software-interpolated resolution is 1,200 dpi for color scans and line art. Has color-preview mode. Requires Macintosh Plus or higher with 4 MB of RAM. Bundled with either Photoshop or ColorStudio, $1,799; with Color It!, $1,399. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Dec '91)

Leaf Systems Leafscan 35 ⭐⭐⭐⭐

This well-built 35mm slide scanner offers excellent film-output quality, with good shadow detail and color. Automatic focus without manual override. Color preview. Supports mounted 35mm slides or strip film. Includes Photoshop plug-in. Requires Macintosh II series or higher, System 6.03 or later, 8 MB of RAM, and a 24-bit color display system.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

$9,995. Leaf Systems, Inc., 250 Turnpike Rd., Southborough, MA 01772. 508-460-8300. (Nov '92) ★ '91 Eddy

Leaf Systems Leafscan 45 ⭐⭐⭐⭐½

This well-built film scanner offers excellent film-output quality, with good shadow detail and color. Automatic focus without manual override. Large footprint. Color preview. Supports mounted and unmounted 35mm, 2.25-x-2.25-inch, and 4-x-5-inch film. Includes Photoshop plug-in. Requires Macintosh II series or higher, System 6.03 or later, 8 MB of RAM, and a 24-bit color display system. $14,995. Leaf Systems, Inc., 250 Turnpike Rd., Southborough, MA 01772. 508-460-8300. (Nov '92)

LightningScan Pro 256 ⭐⭐⭐

This hand-held scanner works well with 8-bit, 256-level gray-scale images. Includes excellent ThunderWorks and Enhance image-processing software programs. For OCR, scanner is somewhat fussy about input speed and scanner-head positioning. Under System 7, ReadIt Pro OCR software (included) allows scanner to send text data directly into an open application, but it works erratically. Connects anywhere in SCSI chain via included converter box. Version 1.32 reviewed. Requires Macintosh Plus or later with 2 MB of available RAM, System 6.07 or later, and a hard drive. $649. Thunderware, Inc., 21 Orinda Way, Orinda, CA 94563. 800-445-1166 or 510-254-6581. (Sept '92)

Logitech ScanMan Model 32 ⭐⭐⭐

This hand-held gray-scale scanner supports resolutions as high as 400 dpi but only 32 levels of gray. Software handles basic OCR adequately, but scanned text must be exported to a separate document and then opened with a word processor. Supports image and text stitching. Included SCSI-connector box has internal termination, so scanner must be located at end of SCSI chain, or the box must be opened to remove termination. Bundled with CatchWord Pro OCR software. Version 2.1 reviewed. Requires Macintosh Plus or later with 2 MB of available RAM and a hard drive. $599. Logitech, Inc., 6505 Kaiser Dr., Fremont, CA 94555. 800-231-7717 or 510-795-8500. (Sept '92)

Microtek ScanMaker 1850S ⭐⭐⭐½

This easy-to-use, affordable 35mm slide scanner provides good images, moderate resolution, and decent color. Images often require color correction in an image-editing program. Adequate for multimedia, video production, and FPO page-layout production but not for high-end prepress work. Focus and calibration are automatic without manual override. Small footprint. Supports mounted 35mm slides. Includes Photoshop plug-in and handy DA software. Requires Mac II series or higher, System 6.03 or later, 4 MB of RAM, and a color display system. $2,199. Microtek Lab, Inc., 680 Knox St., Torrance, CA 90502. 800-654-4160 or 213-321-2121. (Nov '92)

Microtek ScanMaker 600ZS ⭐⭐⭐½

This 24-bit, 300-dpi, flatbed color scanner has a maximum image area of 8.5 x 13.5 inches. Mediocre scan quality but can adjust scans, with bundled Photoshop 2.0. Comes with a SCSI interface and cable. External SCSI termination. Includes DA scanning software and Photoshop plug-in. Maximum software-interpolated resolution is 600 dpi for color scans and line art. Has color-preview mode. Requires Macintosh with 24-bit-color display system. $1,995. Microtek Lab, Inc., 680 Knox St., Torrance, CA 90502. 800-654-4160 or 213-321-2121. (Dec '91)

Nikon LS-3510AF ⭐⭐⭐⭐

This fast slide scanner needs friendlier software but offers variable input resolution and a wide range of controls. Delivers high resolution and good color. Focusing is either automatic or manual. Automatic calibration. Color preview. Powerful software not for novices. Supports 35mm or 40mm (SuperSlide) formats either mounted or as strip film. Bundled with either Photoshop or ColorStudio. Includes Photoshop plug-in. Excellent documentation. Requires Macintosh II series or higher with System 6.03 or later, 8 MB of RAM, and a 24-bit color display system. 8-bit version, $9,535; 12-bit version, $11,316. Nikon Electronic Imaging, 1300 Walt Whitman Rd., Melville, NY 11747. 800-526-4566 or 516-547-4355. (Nov '92)

NISCA Niscan Spectra Mac ⭐⭐⭐½

This 24-bit, 200-dpi, portable flatbed color scanner allows a maximum image area of 4 x 6 inches. Compact and offers good scan quality for a portable scanner. Uses serial interface and modem cable. Extremely slow. Lacks bundled scanning or image-retouching application and plug-ins. Maximum software-interpolated resolution is 400 dpi for color scans and line art. ScanDo DA software has color-preview mode. Requires Macintosh SE or higher and third-party modem (serial) cable. $995. NISCA, Inc., 1919 Old Denton Rd., Ste. 104, Carrollton, TX 75006. 800-245-7226 or 214-242-9696. (Dec '91)

PageBrush Professional ⭐⭐½

This 6-bit, gray-scale, hand-held scanner reads 64 shades of gray at resolutions as high as 300 dpi. Saves images in 8-bit format. Uses dedicated NuBus card and transparent acetate grid (placed over artwork). Can double as overgrown two-button optical mouse. Scanner head has brightness control that's adjustable on the fly. Innovative software, which automatically stitches images together during scanning, is painfully slow but can export images in TIFF, PICT, EPS, and MacPaint formats. Version 1.0 reviewed. Version 1.02 shipping. Requires Macintosh II series or higher with 2 MB of available RAM and a hard drive. $795. Mitsubishi International Corp., 50 California St., Ste. 3000, San Francisco, CA 94111. 415-544-2781. (Feb '92)

PC Scan 3000 ⭐⭐⭐⭐

This flatbed scanner has excellent 300-dpi resolvability. Provides very even illumination and 8-bit gray-scale capability. Requires Macintosh Plus or later. Scanner with imaging software only, $1,275; bundled with Publish Pac and Recognize! OCR software, $1,395. DEST, 1015 E. Brokaw Rd., San Jose, CA 95131. 408-436-2700. (Sept '90)

Polaroid CS-500 Digital Photo Scanner ⭐⭐⭐⭐

This 24-bit color scanner quickly and efficiently processes images as large as 4 x 6 inches. Resulting images are sharp and detailed. Highest resolution setting is 500 dpi. Bundled software includes a system extension, the SprintScan application, and a Photoshop plug-in. Software allows for easily customized color-balance settings. Includes several preconfigured settings files to handle different types of photos. Requires Macintosh II series or higher, System 6.03 or later, and a 24-bit color display system. $3,995. Polaroid Corp., 575 Technology Square, Cambridge, MA 02139. 800-225-1618 or 617-577-2000. (Oct '92)

Tamarack ArtiScan 3000C ⭐⭐⭐⭐

This 24-bit, 300-dpi, flatbed color scanner has a maximum image area of 8.5 x 11.75 inches. Fast. Offers good color quality. Confusing software interface. Comes with a SCSI interface and cable. Internal SCSI termination. Bundled with Photoshop 1.07 plus Photoshop plug-in. Maximum software-interpolated resolution is 300 dpi for color scans and line art. Lacks color-preview mode. Requires Macintosh II series or higher with 2 MB of RAM, System 6.04 or later, a hard drive, and a 24-bit-color display system. $995 direct. Artix Technologies, Inc. (Tamarack Telecom), 1544 Centre Pointe Dr., Milpitas, CA 95035. 800-643-0666 or 408-956-0144. (Dec '91)

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

ThunderScan Plus ↕↕↕↕
The ThunderScan was the original Mac scanner. It still does the job, albeit slowly. Can scan only materials that can be fed through a printer. Excellent software. Can scan up to 32 levels of gray. Scanned images are bit-mapped but can also be saved as PostScript files. Version 1.05 reviewed. Version 1.31 shipping. Requires Macintosh Plus or later and ImageWriter or ImageWriter II; requires separate power supply for use with Mac II series. $249. Thunderware, Inc., 21 Orinda Way, Orinda, CA 94563. 800-445-1166 or 510-254-6581. (Mar '90) ★ '85 Eddy

Thunderware LightningScan 400 ↕↕↕↕½
This hand-held gray-scale scanner combines good hardware performance and excellent software. Scans at up to 400 dpi. Snap-on guide. Externally terminated SCSI box. Requires Macintosh Plus or later. $495; ThunderWorks 1.31 software upgrade, $24. Thunderware, Inc., 21 Orinda Way, Orinda, CA 94563. 800-445-1166 or 510-254-6581. (Sept '90)

Typist Plus Graphics ↕↕↕½
This hand-held scanner can handle both OCR and 1-bit black-and-white graphics. Gray-scale images are interpolated through software. Text-character recognition is good, although slow and somewhat finicky compared with industrial-strength software-only OCR packages such as OmniPage Pro. Can input text directly into a Mac application. Can stitch together text but not graphics. Scan head is 5.25 inches wide. Version 2.0 reviewed. Requires Macintosh SE or later with 4 MB of RAM, MultiFinder or System 7, and a hard drive. $695. Caere Corp., 100 Cooper Ct., Los Gatos, CA 95030. 800-535-7226 or 408-395-7000. (Sept '92)

UMAX UC1200S ↕↕↕↕½
This fast, affordable, 24-bit-color flatbed scanner uses software interpolation to boost its 600-dpi resolution up to 1,200 dpi. Accurate colors and no registration problems. Uses a one-pass scanning engine and a 2-MB image buffer. Included software is easy to use but has weak interface and confusing dialog boxes. Requires Macintosh II series or higher, 8 MB of RAM, and a 24-bit color display system. $5,495. UMAX Technologies, Inc., 3170 Coronado Dr., Santa Clara, CA 95054. 800-562-0311 or 408-982-0771. (Oct '92)

UMAX UC630 ↕↕↕↕
This 24-bit, flatbed color scanner has a maximum image area of 8.5 x 14 inches. Resolution is 300 x 600 dpi. Fast. Offers good color quality and registration. Confusing software interface. Comes with a SCSI interface and cable. Internal SCSI termination, and only one port is provided. Bundled with Photoshop 2.0 plus Photoshop plug-in. Maximum software-interpolated resolution is 600 dpi for color scans and line art. Lacks color-preview mode. Requires Macintosh with minimum 4 MB of RAM. $1,995. UMAX Technologies, Inc., 3170 Coronado Dr., Santa Clara, CA 95054. 800-562-0311 or 408-982-0771. (Dec '91)

UMAX UG630 ↕↕↕½
This 300-dpi flatbed scanner has excellent resolvability and gray scale quality. Convenient and easy to maintain. Includes Scanner Interface Kit. Requires Macintosh Plus or later with 2 MB of RAM. $1,550. UMAX Technologies, Inc., 3170 Coronado Dr., Santa Clara, CA 95054. 800-562-0311 or 408-982-0771. (Sept '90)

Varityper 1200 ↕↕↕↕
High-resolution, 400-dpi scanner with excellent OCR capabilities. Powerful software controls. Price includes Mac IIx with 8 MB of RAM. $29,000. Varityper, 11 Mt. Pleasant Ave., East Hanover, NJ 07936. 800-631-8134 or 201-887-8000. (Sept '90)

SPREADSHEETS & NUMERICAL ANALYSIS

BaseToBase ↕↕↕
BaseToBase is one of the simplest and finest DA calculators for converting numbers from decimal to hexadecimal, octal, or binary. Also includes logical operations and other functions. Version 1.0 reviewed. Free (Remy Malan); available from on-line services such as ZiffNet/Mac. (Oct '90)

BiPlane ↕↕↕↕½
This budget spreadsheet program offers an incredible array of features, including charting capability. Includes DA version. Perfect for basic number-crunching if you already have or don't need integrated word-processing, database, and graphics tools. Slow at some tasks such as filling selected cells and cutting or clearing cell contents. Version 2.07 reviewed. Requires Macintosh Plus or later. $59 direct. Night Diamonds Software, P.O. Box 1608, Huntington Beach, CA 92647. 714-842-2492. (Dec '92)

CA-Cricket Graph ↕↕↕½
CA-Cricket Graph was a top-notch charting program when it came out long ago. Still provides good quality-control charts and mathematical-manipulation capabilities. Supports direct plotter output. Doesn't support 3-D charts, pictograms, or adjustable bar/column spacing. Very limited color options. Ideal for basic educational and scientific use. Latest version adds expanded data sheet of 1,000 columns by 32,000 rows; a 64-color palette; data smoothing; hot links between graphs and data; the ability to plot a specific range of row data; eight zoom levels; and new page-layout features, such as ruler grids and guides. Version 1.32 reviewed. Version III shipping. Requires Macintosh Plus or later, System 6.03 or later, 2 MB of RAM, and a hard drive. $195; upgrade, $49. Computer Associates International, Inc., One Computer Associates Plaza, Islandia, NY 11788. 800-531-5236 or 516-342-5224. (July '92) ★ '86 Eddy

Calculator Construction Set ↕↕↕½
Calculator Construction Set lets you build almost any sort of calculator imaginable. The finished calculators are genuine working DAs. Takes some effort and you need to read the manual, but the results are worth it. Version 2.0 reviewed. Version 2.096 shipping. Requires Macintosh Plus or later; hard drive recommended. $99.95. Dubl-Click Software, Inc., 22521 Styles St., Woodland Hills, CA 91367. 800-775-2068 or 818-888-2068. (Feb '90)

Data Desk ↕↕↕½
Data Desk, a business statistics package, is excellent for sophisticated analyses. Features great exploratory interactive graphics and solid data handling. Easy to use. Good documentation and on-line help. Lacks econometric procedures and presentation-enhancement features. Importing restrictions may cause problems. Version 3.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $595. Data Description, Inc., P.O. Box 4555, Ithaca, NY 14852. 607-257-1000. (Apr '90)

DataMerge ↕↕↕½
DataMerge simplifies manipulating tabular data. It works with all major spreadsheet programs and can merge up to nine files. The files can be larger than existing RAM. Excellent performance. Version 2.0 reviewed. Version 2.03 shipping. Requires Mac Plus or later and a hard drive. $99 direct. Seawell Micro-Systems, Inc., 3808 39th Ave. S.W., Seattle, WA 98116. 206-322-3123. (May '90)

DataPivot ↕↕↕↕
DataPivot is an intuitive, easy-to-use program for data analysis. Lets you create a variety of cross-tabular reports from the same worksheet or data record without the arduous task of writing complex spreadsheet formulas and macros. Provides many simple report formats and views of numerical or textual data. Automatically recalculates formulas and totals when you pivot a report by interchanging columns and rows. Includes many "gadget" tools for quickly manipulating data, and can import or export data in a variety of formats. Can't substitute for specialized statistical-analysis packages, and

MICE RATINGS ↕ ↕½ ↕↕ ↕↕½ ↕↕↕ ↕↕↕½ ↕↕↕↕ ↕↕↕↕½ ↕↕↕↕↕

lacks charting and presentation features. Documentation is poorly organized. Version 1.03 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive; minimum 4 MB of RAM and 68030 CPU recommended. $299 direct. Brio Technology, 444 Castro St., Ste. 700, Mountain View, CA 94041. 415-961-4110. (May '92) ★ '91 Eddy

DeltaGraph Professional ⭐⭐⭐⭐⭐

DeltaGraph Pro is a powerful color charting and graphics tool. Creates many types of 2-D and striking 3-D charts. Easy to use and can import data from most sources. Has fairly complete spreadsheet features, but real strength is transforming imported spreadsheets into high-quality color business graphics. Good graphics exporting. Slide-show presentation module supports QuickTime movies and digitized sound. Presentations can have wide variety of special effects, timing controls, and automated continuous loops. No support for combination graphs, data recoding, or pictograms. Version 2.0 reviewed. Version 2.01 shipping. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $295. DeltaPoint, Inc., 2 Harris Court, Ste. B-1, Monterey, CA 93940. 800-367-4334 or 408-648-4000. (July '92) ★ '87, '89 Eddy

DeskCalc ⭐⭐⭐

The DeskCalc spreadsheet DA is part of Desk, a collection of powerful DAs that also includes DeskPaint, DeskDraw, DeskWrite, DeskSecretary (appointment calendar), DeskCom (modem control), and DeskFile (minidatabase). Like other DAs, DeskCalc can be accessed from within any application. Offers charting plus many functions and formatting capabilities. Has its own menu bar within the spreadsheet window. Allows only one open spreadsheet at a time. Adequate for most spreadsheet tasks. Version 3.03 reviewed. Version 3.07 shipping. Requires Macintosh Plus or later and a hard drive. $399.95 for complete Desk bundle. Zedcor, 4500 E. Speedway, Ste. 22, Tucson, AZ 85712. 800-482-4567 or 602-881-8101. (Oct '91)

digiMatic ⭐⭐⭐⭐

digiMatic analyzes chart graphics displayed on-screen in other programs. Transparent chart taped to screen or paper chart on digitizing tablet can also be used as template. Saves extracted numerical data in tab-delimited format. Has no automatic mode, but this simple DA is fast and easy to use. Compensates for incorrect chart alignment by mathematically adjusting data. Preview mode lets you check results before generating final numbers. Painting program may be necessary to clean up digitized graphics before conversion. Latest version is an application instead of DA and adds several features. Version 1.02 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $249. Famous Engineer Brand Software, 4855 Finlay St. , Richmond, VA 23231. 804-222-2215. (Nov '91)

Excel ⭐⭐⭐⭐⭐

This full-featured high-end spreadsheet package has multipurpose tool bars and major interface improvements. Most frequently used functions are now logically clustered. Has global search-and-replace and rows-into-columns transposition capabilities. Integral linking within documents or to other documents. Customizes menus and creates dialog and alert boxes. Strong statistical functions and matrix-math abilities. Enhanced graphics and charting capabilities. Powerful outlining, macro programming, and style sheets. Can create simple worksheets as well as large sophisticated systems. Version 4.0 reviewed. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive. $495. Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Sept '92) ★ '85 Eddy

Exstatix ⭐⭐⭐

Exstatix is a powerful, full-featured statistics program. Good graphing ability. Excellent manual. Good presentation-quality graphics and layout-window capabilities for output. Good for beginners as well as advanced users. Limited ANOVA and multivariate procedures. Version 1.2 reviewed. Version 1.53 shipping. Requires Macintosh Plus or later. $295. Strategic Mapping, Inc., 3135 Kifer Rd., Santa Clara, CA 95051. 408-970-9600. (Apr '90)

Fastat ⭐⭐⭐

Fastat is a statistics package with a good Mac interface. Useful data analysis and range testing. Can display results graphically and numerically. Graphing abilities aren't presentation quality and can be hard to manipulate. Easy to learn. Optional modules add many specialized features. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, System 6.03 or later, 2 MB of RAM, and a hard drive. $495 direct; Design, Logit, Probit, and Testat modules, $110 each. Systat, Inc., 1800 Sherman Ave., Evanston, IL 60201. 708-864-5670. (Nov '89)

FlexiGraphs ⭐⭐⭐½

FlexiGraphs lets you start with basic charts that you can modify in a staggering variety of ways. The simple but elegant interface lets you add attractive details and modify certain parts of charts while locking other areas down. Derives numerical data from graphs drawn on the screen. Version 1.0 reviewed. Version 1.13 shipping. Requires Macintosh Plus or later and System 6.05 or later. $149 direct. Tree Star, Inc., 20 Winding Way, San Carlos, CA 94070. 800-366-6045 or 415-508-9349. (Apr '90)

FlexiTrace ⭐⭐⭐⭐

FlexiTrace automatically converts digitized chart graphics into numerical data. Saves extracted data in tab-delimited format. Can handle line, column, area, and scatter charts. Charts are imported as scanned images or by selecting, copying, and pasting from other applications. Reads PICT files. To ensure correct chart alignment before extracting data, clever plumb-bob tool rotates imported graphics. Easy-to-use tools and filters speed cleanup of graphics before conversion. Version 1.01 reviewed. Version 1.03 shipping. Requires Macintosh Plus or later. $249. Tree Star, Inc., 20 Winding Way, San Carlos, CA 94070. 800-366-6045 or 415-508-9349. (Nov '91)

Full Impact ⭐⭐

Full Impact is a high-end spreadsheet program with impressive capabilities. The program (originally from Ashton-Tate) can now import and export Excel files directly and provides global search-and-replace, virtual memory, and programmable buttons. It has excellent 3-D-chart graphics and text integration as well as 32-bit-color and presentation capabilities. Product support uncertain. Version 2.0 reviewed. Requires Macintosh Plus or later. $295. Borland International, Inc., 1800 Green Hills Rd., Scotts Valley, CA 95066. 800-331-0877 or 408-438-5300. (Feb '91) ★ '88 Eddy

GraphMaster ⭐⭐⭐⭐½

GraphMaster is a powerful color charting tool with many useful features for presenting a variety of 2-D or striking 3-D graphs. Good editing tools and built-in programming language. Allows use of pictograms — repeating pieces of artwork that are stacked, stretched, or scaled according to linked numerical values. Can save documents as PICT and Illustrator files. Imports data in many formats and can export tabbed text, CSV, and SYLK files. Support for color gradients is excellent. Version 1.31 reviewed. Version 1.33 shipping. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $195. Visual Business Systems, Inc., 380 Interstate N. Pkwy., Ste. 190, Atlanta, GA 30339. 404-956-0325. (July '92)

Igor ⭐⭐⭐½

Igor is a data-visualization and -analysis program. Offers reasonably complete set of options and tests. Doesn't have

MICE RATINGS ½ 1 1½ 2 2½ 3 3½ 4 4½ 5

all the data-manipulation features of a statistics program but can define anything mathematically. Powerful macro language and easy command structure. Good performance. Printing quality and speed are excellent. Imports graphics as well as data and supports color. Version 1.1 reviewed. Version 1.26 shipping. Requires 1 MB of available RAM, System 4.2 or later, and a hard drive. $295 direct. WaveMetrics, P.O. Box 2088, Lake Oswego, OR 97035. 503-620-3001. (June '90)

JMP ★★★★½

JMP is an innovative, versatile business-statistics package. Provides good data-management and exploratory interactive-graphics tools. Supports color for graphics. Sluggish performance on any CPU below a 68030. Excels at data transformations. Documentation adequate but may be confusing for budding statisticians. An excellent choice for knowledgeable users of statistical software who are looking for flexible data analysis. Version 2.0 reviewed. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive. $695 direct; educational and volume discounts available. SAS Institute, Inc., SAS Campus Dr., Cary, NC 27513. 919-677-8000. (Mar '92)

KaleidaGraph ★★★★

KaleidaGraph is a superb dedicated graphing and analysis package. Data can be entered on a 256-column-by-32,000-row spreadsheet. Exceptionally nice printed output. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later, System 6.05 or later, 4 MB of RAM, and a hard drive; math coprocessor recommended. $249. Synergy Software, 2457 Perkiomen Ave., Reading, PA 19606. 800-876-8376 or 215-779-0522. (Feb '90)

Lotus 1-2-3 for Macintosh ★★★★

Lotus 1-2-3 is a powerful Mac spreadsheet package with easy, precise charting capabilities. Lacks the overall development features of Excel but has a clean, highly customizable Mac interface. Allows in-cell editing of values and formulas. Features a unique 3-D-worksheet function that lets you incorporate multiple worksheets into a single document. Includes DataLens technology that supports Apple's DAL and can access information in DB2, FoxBASE+, and SQL formats. Can provide the traditional 1-2-3 command-line interface for DOS veterans. Most files and macros created in DOS version of 1-2-3 run correctly as Mac documents, but some problems linger. Version 1.0 reviewed. Requires Mac Plus or later with 2 MB of RAM and a hard drive. $495. Lotus Development Corp., 55 Cambridge Pkwy., Cambridge, MA 02142. 800-688-8320 or 617-577-8500. (June '92)

MacCalc ★★★

This low-end spreadsheet program has good data-analysis tools. Streamlined user interface has good help and search functions but uses nonstandard, rolling menus. Fonts, styles, and formatting are variable from cell to cell. Supports split windows and cell protection. Excel, MultiPlan, or Lotus 1-2-3 models can be converted into MacCalc format. No charting capability. Version 1.2 reviewed. Requires Macintosh Plus or later. $139. Bravo Technologies, Inc., P.O. Box 10078, Berkeley, CA 94709. 510-841-8552. (Oct '91) ★ '86 Eddy

MacGraphX ★★★½

MacGraphX is a capable charting package that lacks many sophisticated features but provides some unique goodies. Its complex but versatile data-import interface lets you select subsets of data before importing and can combine data from several sources. Includes separate program that correctly imports data from mainframe applications using fixed field lengths. Data-export options are limited to tabbed text, SYLK, and WKS formats. Data-manipulation capabilities include use of worksheet formulas as well as straight numerical data. Doesn't create 3-D charts, and 2-D options are limited. Stacked-area charts and editing tools are good. Exports charts only through the Clipboard or as PICT files. Version 1.0 reviewed. Requires Macintosh Plus or later, System 6.03 or later, and hard drive. $199. Bravo Technologies, Inc., P.O. Box 10078, Berkeley, CA 94709. 510-841-8552. (July '92)

MacSpin ★★★½

MacSpin is a powerful program for graphic-data analysis. Handles multivariate data in a highly visual manner. Version 1.0 reviewed. Version 3.01 shipping. Requires Macintosh Plus or later. $295. Abacus Concepts, Inc., 1984 Bonita Ave., Berkeley, CA 94704. 800-666-7828 or 510-540-1949. (June '86) ★ '87 Eddy

Mathcad ★★★½

Mathcad is a reliable math processor for equation solvers. Creates charts, although its data-handling ability is somewhat limited. Data entry needs to be improved and made more Mac-like. Version 2.02 reviewed. Version 2.06 shipping. Requires Macintosh Plus or later. $495; educational discounts available. MathSoft, Inc., 201 Broadway, Cambridge, MA 02139. 800-628-4223 or 617-577-1017. (Apr '90)

Mathematica ★★★★½

Mathematica is a powerful tool for doing all kinds of math. Offers arbitrary-precision numerical calculations, symbolic computation, PostScript graphics, and programmability. Enhanced version requires math coprocessor and provides advanced features. Version 1.03 reviewed. Version 2.1 shipping. Requires System 6.07 or later, 4 MB of available RAM, and a hard drive. $595; enhanced version, $895. Wolfram Research, Inc., 100 Trade Center Dr., Champaign, IL 61820. 800-441-6284 or 217-398-0700. (Nov '88) ★ '88 Eddy

Microtemp Financial Calculators ★★★½

Microtemp Financial Calculators is a set of worksheets for Excel and Works that calculate common personal and small-business financial problems. Includes cash-flow, real-estate, and rate-of-return calculators. Version 1.0 reviewed. $79.95. Microtemp, 318 Mendocino Ave., Ste. 22, Santa Rosa, CA 95404. 707-575-1459. (Aug '88)

Minitab ★★★½

Minitab is a fast, high-end statistics package that can share data with the popular PC-, minicomputer-, and mainframe-based versions of this program. Broad range of statistical procedures should satisfy all but the most technically advanced users. Retooled interface is significant improvement over previous versions, but scrolling Session window and character-based command structure still dominate. Adds standard Mac menus and dialog boxes for accessing all but the program's most complex functions. New spreadsheetlike Data Editor facilitates data entry and editing. Creates adequate graphs and charts, but these do not automatically update as source data changes. Version 8.2 reviewed. Requires Mac Plus or later and a hard drive; Mac II series or higher with math coprocessor recommended. $695; academic discounts available. Minitab, Inc., 3081 Enterprise Dr., State College, PA 16801. 800-448-3555 or 814-238-3280. (June '92)

Model-It! ★★★½

Model-It! is a good tool for simple mathematical modeling and simulating small dynamic systems. Good manual. Performance is adequate — input is mediocre, and output is basic. Requires prior knowledge of modeling — there's no AI. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, System 6.05 or later, and a hard drive. $395. Norris Software Systems, 8201 Corteland Dr., Knoxville, TN 37909. 615-693-3132. (June '90)

MUSE ★★★★

MUSE blends elements of spreadsheet and database software into a unique program that explores multidimensional data in a variety of ways. Searching for specified information and subsequent manipulation of data is easy. Natural query language uses

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★

English-like commands in a script-writing window. Built-in dictionary enables program to interpret user queries. Interface is often confusing. Provides basic charting and simple animations. Imports files in many formats, including Excel 3.0, WKS, WK1, DBF, DIF, SYLK, and text files using standard database delimiters. Proper organization of data before importing is crucial and may require expert assistance. Good documentation. Version 1.01 reviewed. Requires 68020 CPU or higher with System 6.05 or later, 4 MB of RAM, and a hard drive; math coprocessor recommended. $695. Occam Research Corp., 42 Pleasant St., Watertown, MA 02172. 617-923-3545. (July '92)

One Shot Worksheet ‡‡½

One Shot Worksheet is a DA forms generator with sophisticated calculation capabilities. Has limited drawing tools and restricts number of objects per page. Provides basic support for designing labels, data fields, and graphic objects. Inadequate documentation. Version 1.0 reviewed. Requires Macintosh Plus or later and a hard drive. $99.95. Baseline Publishing, Inc., 1770 Moriah Woods Blvd., Ste. 14, Memphis, TN 38117. 800-926-9677 or 901-682-9676. (Oct '91)

Parameter Manager Plus ‡‡‡½

Parameter Manager Plus analyzes data in real time, using a spreadsheetlike interface. Handles both hand-entered and imported data. Includes statistical quality control, equation fitting, predictive maintenance, histograms, drawing, and presentation. Version 3.0 reviewed. Version 3.6 shipping. Requires Macintosh Plus or later. $795. BlackHawk Technology, P.O. Box 2013, Morgan Hill, CA 95038. 800-528-9333 or 408-776-1106. (July '89)

PowerMacros for the Excel User ‡‡‡‡

PowerMacros offers all the power of macros without your having to learn how to write them. Includes a search-and-replace macro and a macro to transpose rows and columns. Improves Excel performance. Version 2.1 shipping. Requires Microsoft Excel version 1.5, 2.2, or later. $49.95. Individual Software, Inc., 5870 Stoneridge Dr., Ste. 1, Pleasanton, CA 94588. 800-331-3313 or 510-734-6767. (July '88)

PowerPlay ‡‡½

PowerPlay is a decision-support package designed for graphically exploring and analyzing multidimensional data. Easy to use, but structuring data to be imported is slow and tedious. Has built-in DAL compatibility. Can extract ASCII data from networked sources such as corporate SQL-based mainframe databases. Limited data-selection and -export options. Version 1.0 reviewed. Requires Macintosh II series or higher with 8 MB of RAM, a hard drive, and a color display system. $695 direct. Cognos Corp., 67 S. Bedford St., Burlington, MA 01803. 800-426-4667 or 617-229-6600. (Aug '92)

Resolve ‡‡‡‡½

This spreadsheet program offers an elegant interface and accessible 3-D-charting features. Lacks a few sophisticated features (such as style sheets) found in Excel 3.0 but uses a straightforward scripting language unlike Excel's complex macros. Includes MacDraw-like drawing tools. Auto-Save option can back up worksheets automatically. Supports wide variety of file formats for importing and exporting data. Good documentation and on-line context-sensitive help. Despite some tedious limitations, ideal for custom-built complex applications or for users of other Claris products. Version 1.0v3 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later, System 6.02 or later, and a hard drive. $399. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (June '92)

@RISK ‡‡‡½

This add-in for Excel provides Monte Carlo simulation. Risk-analysis functions and a series of new menus give you an accurate picture of how even the most uncertain estimates and projections are likely to affect your business. Decision analysis is based on 24 distributions. Generates summary Excel worksheets with statistical information for all output cells. Charting capabilities are adequate. Performance is sluggish on low-end Macs. Interface is difficult but offers integration with standard Excel environment. Version 1.01 reviewed. Version 1.10 shipping. Requires Microsoft Excel 3.0 or later, Mac SE/30 or higher, 2 MB of RAM, and a hard drive. $395 direct. Palisade Corp., 31 Decker Rd., Newfield, NY 14667. 800-432-7475 or 607-277-8000. (Apr '92)

SPSS for the Macintosh ‡‡‡½

SPSS for the Macintosh provides most of the procedures needed by professional statistical analysts. Has excellent on-line help, useful Command Generator, and clear documentation. Non-Mac interface. Has some graphics flaws. Text is editable. Version 1.5 reviewed. Version 4.0 shipping. Requires Macintosh Plus or later, 2 MB of RAM, and a hard drive. $795; Advanced Statistics, Trends, Table, and Categories modules, $395 each. SPSS, Inc., 444 N. Michigan Ave., Chicago, IL 60611. 800-543-6609 or 312-329-2400. (Nov '90)

Spyglass Dicer ‡‡½

Spyglass Dicer provides a 3-D, full-color, detailed perspective view of statistical data. Although its implementation is weaker than other data-visualization tools from Spyglass, Dicer does create useful images from huge amounts of information in HDF (Hierarchical Data Format), the public-domain format invented at the National Center for Supercomputing Applications. It comes with MPW C 3.1 and FORTRAN libraries. Dicer can import raw binary data in many formats and accepts data in the netCDF format. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh SE/30, Mac II series, or LC; 4 MB of RAM; System 6.03 or later; color monitor; and a hard drive. Math coprocessor recommended. $495; educational and volume discounts available. Spyglass, Inc., 1800 Woodfield Dr., Savoy, IL 61874. 217-355-6000. (Feb '91)

Spyglass Transform ‡‡‡‡½

Spyglass Transform is a data-analysis package that lets you display huge arrays of numbers as pictures. Can draw complex 3-D color surfaces, contours, and vector plots. Allows overlays of different images and interpolations of missing data, and opens and saves standard HDF spreadsheets. Can import data in a variety of workstation and mainframe formats; as an ASCII list of triplets; or as PICT, TIFF, or FITS files. Includes Spyglass View, which creates animations of data evolving over time. Operates as a stand-alone application or with Spyglass Dicer and Spyglass Format. Requires some knowledge of FORTRAN. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh II series, System 6.03 or later, 4 MB of RAM, an 8-bit-color display, and hard drive. $495; educational and volume discounts available. Spyglass, Inc., 1800 Woodfield Dr., Savoy, IL 61874. 217-355-6000. (Sept '91) ★ '91 Eddy

StatView ‡‡‡‡

This powerful, intuitive statistical-analysis package offers complete data management and excellent presentation-quality output. Elegant interface provides user with a "dataset" environment (for entering and formatting data) and a View window for data analysis and detailed graphic design. Can import data from spreadsheet, word-processing, or database programs. Excellent variety of charts and 2-D graphs are possible. No 3-D graph support. Includes several dozen templates and can create custom templates. Concise, well-written documentation. Excellent on-line help. Version 4.0 reviewed. Requires Macintosh SE/30, or II series or higher with FPU. $595. Abacus Concepts, Inc., 1984 Bonita Ave., Berkeley,

MICE RATINGS ‡ ‡½ ‡‡ ‡‡½ ‡‡‡ ‡‡‡½ ‡‡‡‡ ‡‡‡‡½ ‡‡‡‡‡

CA 94704. 800-666-7828 or 510-540-1949. (Dec '92)

StatView SE + Graphics ⭐⭐⭐⭐

StatView SE+Graphics is the simplified version of StatView. Features easy-to-use interface and excellent presentation graphics. Full range of procedures available. Data-transformation functions are limited. Weak interactive exploratory graphics but performance is adequate. Version 1.0 reviewed. Version 1.04 shipping. Requires Macintosh Plus or later. $350. Abacus Concepts, Inc., 1984 Bonita Ave., Berkeley, CA 94704. 800-666-7828 or 510-540-1949. (Apr '90)

SuperANOVA ⭐⭐⭐⭐½

SuperANOVA is a slick linear-modeling program with a great interface. Feature-laden and powerful. Version 1.0 reviewed. Version 1.11 shipping. Requires Macintosh Plus and System 6.03 or later. $495. Abacus Concepts, Inc., 1984 Bonita Ave., Berkeley, CA 94704. 800-666-7828 or 510-540-1949. (Mar '90) ★ '89 Eddy

SYSTAT for the Macintosh ⭐⭐⭐½

SYSTAT for the Macintosh is a statistics program with a good Mac interface. Some slow and awkward data- and variable-handling features. Useful graphics, including 3-D charts and color graphics. Memory-hungry. Latest version supports QuickTime. Optional modules add many specialized features. Version 5.0 reviewed. Version 5.2 shipping. Requires Macintosh Plus or later, 2 MB of RAM, System 6.03 or later, and a hard drive. $895 direct; Design, Logit, Probit, and Testat modules, $110 each. Systat, Inc., 1800 Sherman Ave., Evanston, IL 60201. 708-864-5670. (Nov '90)

Theorist ⭐⭐⭐⭐⭐

Theorist is an elegant equation solver that's versatile, full-featured, and powerful. There are no procedures — everything is done with user-created propositions that are easy to build. Superb interface. Dozens of math functions and transformations are automatically activated by a few menu commands. Can visualize equations and theories through graphs and animation, including 3-D and color. Version 1.01 reviewed. Version 1.11 shipping. Requires Macintosh Plus or later and System 6.03 or later. $399.95. Prescience Corp., 939 Howard St., San Francisco, CA 94103. 800-827-6284 or 415-543-2252. (June '90) ★ '89 Eddy

Wingz ⭐⭐⭐½

Wingz is a high-end spreadsheet program with strong 3-D charting features. HyperScript language lets you change menus, options, and functions by editing the master script file. Requires a lot of custom macro programming to perform linking operations. Well-intentioned minimal-recalculating option can take longer than recalculating an entire spreadsheet. Version 1.0 reviewed. Version 1.1a shipping. Requires Macintosh Plus or later with 2 MB of RAM and a hard drive. $399. Informix Software, Inc., 4100 Bohannon Dr., Menlo Park, CA 94025. 800-331-1763 or 415-926-6300. (July '90) ★ '89 Eddy

XCAL ⭐⭐⭐½

XCAL is a set of HyperCard externals that add calculation and spreadsheetlike abilities to stacks. Grids restricted to the size of single cards. Extends HyperCard's math abilities significantly. Poor manual. Version 1.5 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later with 2 MB of RAM, HyperCard 2.1, and a hard drive. $149.95. Trendware Corp., P.O. Box 2285, Huntington, CT 06484. 203-926-1116. (Jan '90)

STORAGE SYSTEMS

Applied Engineering MacRAM Portable ⭐⭐⭐⭐½

The MacRAM Portable was the first memory-expansion card for the Mac Portable. Can hold from 1 to 8 MB of RAM and creates little additional drain on the battery, so you can open several applications at once without problems. Comes with a grounding wrist strap to prevent electrostatic damage to your Mac when you install the card. Versatile way to upgrade memory. Requires Macintosh Portable. $399; each additional SIMM, $350. Applied Engineering, 3210 Beltline Rd., Dallas, TX 75234. 800-554-6227 or 214-241-6060. (Mar '91)

ATTO SiliconDisk PRO ⭐⭐⭐⭐½

The SiliconDisk PRO is a large, high-performance, dedicated RAM disk with access times 300 times faster than that of an average SCSI hard drive. Easy to hook up and use. Extremely fast for applications requiring intensive throughput from SCSI drive. CPU-intensive applications generally unaffected. Data disappears when power is turned off, so uninterruptible power supply is advisable. $3,995 to $58,995, depending on capacity. ATTO Technology, Inc., 1576 Sweet Home Rd., Amherst, NY 14228. 716-688-4259. (Feb '90)

DiskTwin ⭐⭐⭐⭐½

DiskTwin simultaneously and transparently writes data to two SCSI drives at once, thereby providing up-to-the-nanosecond backup. Consists of proprietary software and either a NuBus or PDS card. Hardware operates independently of Mac's SCSI chain and doesn't hurt performance. Works with removable-cartridge drives. Includes PartitionTwin software that backs up only important data, even to a drive of different capacity. Version 2.0 reviewed. Version 2.0r6 shipping. Requires PDS- or NuBus-capable Mac. $995. Golden Triangle Computers, Inc., 4849 Ronson Ct., San Diego, CA 92111. 800-326-1858 or 619-279-2100. (Nov '91)

TechWorks 3-Meg Static RAM Card ⭐⭐⭐⭐⭐

The 3-Meg Static RAM Card is an excellent, even necessary, addition to every Mac Portable. Uses no extra power and allows maximum operating speed. With true static RAM, the Portable's battery lasts longer in Sleep mode. Easy to install. Lifetime warranty. Requires Macintosh Portable. $995. Technology Works, Inc. (TechWorks), 4030 Braker Lane W., Ste. 350, Austin, TX 78759. 800-926-3148 or 512-794-8533. (Oct '90)

STORAGE SYSTEMS/HARD-DISK DRIVES

Apple Hard Disk 80SC ⭐⭐⭐⭐½

The Hard Disk 80SC is a superbly designed and well-built 80-MB unit. Noisy. Runs warm. Automatic head parking. Zero footprint. $1,099. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Feb '90)

APS 105 MB ⭐⭐⭐½

This affordable external hard drive uses a Quantum LP105S internal mechanism and offers average performance. Includes two AC power outlets. No software bundled. Actual formatted capacity is 102 MB. Formatting utility provided is Nuvo Labs 1.13. $429 direct. APS (Alliance Peripheral Systems), 2900 S. 291 Hwy., Independence, MO 64057. 800-235-2750 or 816-478-8300. (Nov '91)

APS Maxtor 213 ZFP ⭐⭐⭐⭐

This affordable SCSI hard drive is well built, includes good SCSI cable, and has good documentation. Average performance. Internal mechanism is Maxtor LXT-213SY. Actual capacity using included Alliance Power Tools formatter is 200.6 MB. Bundled with 18 MB of shareware. Includes AC outlets. Two-year warranty. Version 213SY reviewed. Version 7213 Maxtor shipping. $569 direct. APS (Alliance Peripheral Systems), 2900 S. 291 Hwy., Independence, MO 64057. 800-235-2750 or 816-478-8300. (Apr '92)

APS Quantum 210 Portable ⭐⭐⭐½

This affordable, compact SCSI hard drive includes good SCSI cable and has good documentation. Has no fan, and fuse is internal. Good performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity using included Alliance Power Tools formatter is

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

197.3 MB. Bundled with 18 MB of shareware. Two-year warranty. Version 210S reviewed. Version LPS240 shipping. $729 direct. APS (Alliance Peripheral Systems), 2900 S. 291 Hwy., Independence, MO 64057. 800-235-2750 or 816-478-8300. (Apr '92)

CD Technology HD Porta-Drive 200 ⭐⭐⭐

This portable SCSI hard drive has average construction and doesn't include SCSI cable. Average performance. Internal mechanism is Conner CP-3200F. Actual capacity using included Disk Manager Mac formatter is 200.9 MB. Fuse is internal. $1,599. CD Technology, Inc., 766 San Aleso Ave., Sunnyvale, CA 94086. 408-752-8500. (Apr '92)

CMS PD 100S ⭐⭐½

This external hard drive uses a Seagate ST1126N internal mechanism. Slow. Actual formatted capacity is 109 MB. Bundled with excellent SUM II software. Formatting utility provided is CMS Utilities 7.01. Has internal fuse. $1,199. CMS Enhancements, Inc., 2722 Michelson Dr., Irvine, CA 92715. 714-222-6000. (Nov '91)

CMS PD1000S ⭐⭐⭐⭐

The CMS PD1000S is a 1-gigabyte hard drive with a formatted capacity of 990 MB and average seek time of 15 milliseconds. Based on the Micropolis 1598-15 mechanism. Provides good performance with the CMS Utility 6.0.1 SCSI driver. SCSI-ID selection is via external button, and SCSI termination uses an external plug. Bundled with Symantec Utilities for the Macintosh. $7,199. CMS Enhancements, Inc., 2722 Michelson Dr., Irvine, CA 92715. 714-222-6000. (July '91)

CMS Platinum 200 ⭐⭐⭐½

This SCSI hard drive has average construction but slow performance. Good documentation and formatting software. Internal mechanism is Conner CP-3200F. Actual capacity using included CMS Utilities formatter is 200.9 MB. Bundled with SUM II. Fuse is internal. Version 7.02 software reviewed. $1,639. CMS Enhancements, Inc., 2722 Michelson Dr., Irvine, CA 92715. 714-222-6000. (Apr '92)

CMS Platinum 40MB ⭐⭐⭐½

The CMS Platinum 40MB is a 40-MB external SCSI hard drive based on the slow, older (but reliable) Conner CP3040 mechanism. For the price, this drive has poor performance and a stark design, but it includes an auto-sensing power supply for use with North American or European voltages. Good bundled software, including SUM II. SCSI termination is internal, making daisy-chaining SCSI devices difficult. $919. CMS Enhancements, Inc., 2722 Michelson Dr., Irvine, CA 92715. 714-222-6000. (Apr '91)

CMS Platinum Series PD 300 ⭐⭐⭐

The CMS Platinum Series PD 300 hard drive has a capacity of 291 MB. It has slow seek times and low throughput. Good software. $3,299. CMS Enhancements, Inc., 2722 Michelson Dr., Irvine, CA 92715. 714-222-6000. (Dec '90)

Core Optima 200 ⭐⭐⭐½

This fast SCSI hard drive is poorly built. Internal mechanism is Hewlett-Packard C2233. Actual capacity using included Core Formatter software is 221.6 MB. Bundled with SUM II. Fuse is internal. Five-year warranty. Version 3.2 software reviewed. $1,429. Core International, Inc., 7171 N. Federal Hwy., Boca Raton, FL 33487. 407-997-6044. (Apr '92)

Cranel 330MB ⭐⭐⭐½

The Cranel 330MB is a hard drive with a formatted capacity of 321 MB. Average seek times and throughput. Large case. Good customer support. $2,350. Cranel, Inc., 510F E. Wilson Bridge Rd., Worthington, OH 43085. (800) 288-3475 or (614) 433-0045. (Dec '90)

Deltaic DS40Q ⭐⭐⭐

The Deltaic DS40Q is a 40-MB external SCSI hard drive based on the fast, reliable Quantum P40S mechanism. The drive is inexpensive, has a low profile, and has external SCSI-ID selection and SCSI termination. Little software is provided, and the permitted SCSI IDs include illegal numbers 7 through 9. Our test unit's fan rattled when the power-supply cord experienced distorting pressure. $449. Deltaic Systems, 1701 Junction Ct., Ste. 302B, San Jose, CA 95112. 800-745-1240 or 408-441-1240. (Apr '91)

Deltaic Server 100Q ⭐⭐⭐½

This external hard drive uses a Quantum LP105S internal mechanism. Average performance. Actual formatted capacity is 100 MB. No software bundled. Formatting utility provided is Deltaic System Installer 2.01. Disk-access and power-status indicator LEDs hard to see. $699 direct. Deltaic Systems, 1701 Junction Ct., Ste. 302B, San Jose, CA 95112. 800-745-1240 or 408-441-1240. (Nov '91)

Deltaic Server 1G ⭐⭐⭐

The Deltaic Server 1G is a 1-gigabyte hard drive with a formatted capacity of 990 MB. Has an average seek time of 15 milliseconds. Based on the Micropolis 1598-15 mechanism. Provides good performance with the Deltaic 2.01 SCSI driver. SCSI-ID selection is via external button, and SCSI termination uses an external plug. No bundled software. $3,199. Deltaic Systems, 1701 Junction Ct., Ste. 302B, San Jose, CA 95112. 800-745-1240 or 408-441-1240. (July '91)

Deltaic Server 200Q ⭐⭐⭐½

This affordable SCSI hard drive is well built but has an unshielded power supply. Good documentation and performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity using included Deltaic System Installer formatter is 197.3 MB. Two-year warranty. $749 direct. Deltaic Systems, 1701 Junction Ct., Ste. 302B, San Jose, CA 95112. 800-745-1240 or 408-441-1240. (Apr '92)

Deltaic Server 300Q ⭐⭐⭐½

Deltaic Server 300Q is a 326-MB hard drive with short seek times. Average throughput performance. $1,899. Deltaic Systems, 1701 Junction Ct., Ste. 302B, San Jose, CA 95112. 800-745-1240 or 408-441-1240. (Dec '90)

DynaTek HDA 234 ⭐⭐⭐½

This fast SCSI hard drive is well built but has an unshielded power supply. Internal mechanism is Hewlett-Packard C2233. Actual capacity using included ComPass Utilities formatter is 221.6 MB. Two-year warranty. $1,329. DynaTek Automation Systems, Inc., 15 Tangiers Rd., Toronto, Ontario M3J 2B1 Canada. 416-636-3000. (Apr '92)

FWB Hammer 1000 ⭐⭐⭐

The FWB Hammer 1000 is a 1-gigabyte hard drive with a formatted capacity of 988 MB and average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the Hammer 1.4 SCSI driver. SCSI-ID selection is via external button, and SCSI termination uses an external plug. Software provides partitioning, user-selectable-interleave, data-encryption, and password-protection capabilities. Two-year warranty. $3,319. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (July '91)

FWB Hammer 300 ⭐⭐⭐⭐½

The FWB Hammer 300 is a hard drive with a formatted capacity of 323 MB. Short seek times and high throughput rate. Good for equipping a network server. Includes Hard Disk ToolKit SCSI utility. Two-year warranty. $2,209. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (Dec '90)

FWB PocketHammer 50 ⭐⭐⭐⭐½

The FWB PocketHammer 50 is a well-designed, 50-MB external SCSI hard drive based on the fast Quantum LP52S mechanism. Excellent performance. Compact construction doesn't skimp on desirable features. SCSI-ID selection and SCSI termination are external, the case is durable, and both power-on and drive-activity indicator lights are provided. Includes Hard Disk ToolKit SCSI utility. Two-year warranty. $659. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (Apr '91)

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

FWB PocketHammer 100 ★★★★

The PocketHammer 100 portable hard drive uses a Quantum LP105S internal mechanism and offers fast performance. Actual formatted capacity is 100 MB. Includes Hard Disk ToolKit SCSI utility. Two-year warranty. $869. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (Nov '91)

FWB PocketHammer 200 ★★★½

This compact SCSI hard drive is well built and has excellent documentation. Good performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity using included Hammer Install 1.3d formatter is 197.3 MB. Bundled with excellent Hard Disk ToolKit SCSI utility. Two-year warranty. $1,439. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (Apr '92)

GCC UltraDrive 100S ★★★★½

The GCC UltraDrive 100S external hard drive uses a Quantum LP105S internal mechanism and offers fast performance. Actual formatted capacity is 100 MB. Bundled with MacTools Deluxe, QuickEnvelope, QuickSpool, and 3.5 MB of shareware. Formatting utility provided is excellent GCC Drive Manager. Version 6 reviewed. Version 7.24 shipping. $699 direct. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Nov '91)

GCC UltraDrive 430S ★★★★★

The GCC UltraDrive 430S is a hard drive with a formatted capacity of 428 MB. High throughput rate. Average seek times. Includes a QuickDraw print spooler, SUM II, 3.5 MB of public-domain software, and its own envelope-printing utility. Excellent formatting utility provided. Good support. Version 6 reviewed. Version 7.24 shipping. $1,899 direct. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Dec '90)

HDI PowerDrive 200 (Maxtor) ★★★½

This affordable SCSI hard drive is well built but has an unshielded power supply. Both SCSI termination and fuse are internal. Good performance. Internal mechanism is Maxtor LXT-213SY. Actual capacity using included Disk Manager Mac formatter is 200.7 MB. Version 200 reviewed. Version 210 shipping. $629 direct. HDI (Hard Drives International), 1912 W. Fourth St., Tempe, AZ 85281. 800-488-0001 or 602-350-1128. (Apr '92)

HDI PowerDrive 320 ★★★½

The HDI POWERDrive 320 is an inexpensive hard drive with a formatted capacity of 330 MB. Average seek times and throughput. With Micropolis mechanism, $999 direct. HDI (Hard Drives International), 1912 W. Fourth St., Tempe, AZ 85281. 800-488-0001 or 602-350-1128. (Dec '90)

La Cie 1000MB ZFP Plus ★★★★

The La Cie 1000MB ZFP Plus is a 1-gigabyte hard drive with a formatted capacity of 988 MB. Has an average seek time of 15 milliseconds and is based on the Seagate ST41200NM mechanism. Provides good performance with the Silverlining 5.27 SCSI driver. Software provides password-protection and data-encryption functions. SCSI-ID selection is via external button. Internal SCSI termination. Bundled with Norton Utilities for the Macintosh. $1,999 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (July '91)

La Cie Q-ZFP 200 ★★★½

This SCSI hard drive has adequate construction quality but has an internal fuse and uses DIP switches to set SCSI ID. SCSI termination is internal with external switch. Good performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity using included Silverlining formatter is 197.3 MB. Bundled with 10 MB of shareware. Two-year warranty. Version 200 reviewed. Version 240 shipping. $779 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Apr '92)

La Cie Tsunami 50 ★★★★½

The well-designed La Cie Tsunami 50 is an external, 50-MB SCSI hard drive based on the fast Quantum LP52S mechanism. Excellent performance. Compact construction allows vertical or horizontal orientation. Unfortunately, SCSI termination is internal, and SCSI-ID selection is via unlabeled DIP switches. The case is durable, power-on as well as drive-activity indicator lights are provided, and bundled software is excellent. Be careful when buying cables for this drive — it has 25-pin SCSI connectors. $229 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Apr '91)

La Cie Tsunami 100 ★★★★

The portable La Cie Tsunami 100 hard drive uses a Quantum LP105S internal mechanism and offers fast performance. The actual formatted capacity is 101 MB. Includes one AC power outlet. SCSI termination is externally switchable, but SCSI ID is set via DIP switches, and SCSI cable included is 25-pin. Fuse is internal. Bundled software includes Norton Utilities for the Macintosh and 10 MB of shareware. Formatting utility provided is the excellent SilverLining 5.31. $469 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Nov '91)

La Cie Tsunami 200 ★★★½

This portable SCSI hard drive has adequate construction quality but has an internal fuse and uses DIP switches to set SCSI ID. SCSI termination is internal with external switch. Good performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity using included Silverlining formatter is 197.3 MB. Bundled with 10 MB of shareware. Two-year warranty. Version 200 reviewed. Version 240 shipping. $829 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Apr '92)

La Cie ZFP 400 ★★★★★

The La Cie ZFP 400 is an affordable hard drive with a formatted capacity of 423 MB. Average seek times and high throughput rate. Bundled with 5 MB of public-domain software, Silverlining formatting software, and Norton Utilities for the Macintosh. Internal SCSI termination. Good support. $1,119 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Dec '90)

Liberty 70 Series 105Q ★★★½

This portable hard drive uses a Quantum LP105S internal mechanism and offers fast performance. Actual formatted capacity is 102 MB. SCSI termination is internal. Has no fan. No software bundled. Formatting utility provided is Software Architects 3.29. $799. Liberty Systems, Inc., 160 Saratoga Ave., Ste. 38, Santa Clara, CA 95051. 408-983-1127. (Nov '91)

Liberty 70210Q ★★★

This portable SCSI hard drive has adequate construction quality and includes a carrying case but has poor documentation. SCSI termination and fuse are internal. Good performance. Internal mechanism is Plus Impulse 210S. Actual capacity using included SCSI Director formatter is 197.3 MB. Version 70210Q reviewed. Version 50240Q shipping. $1,199 direct. Liberty Systems, Inc., 160 Saratoga Ave., Ste. 38, Santa Clara, CA 95051. 408-983-1127. (Apr '92)

Loviél M210QUP ★★★

This portable SCSI hard drive is poorly built but offers good performance. Both SCSI termination and fuse are internal. Internal mechanism is Plus Impulse 210S. Actual capacity using included SCSI Director formatter is 197.3 MB. Two-year warranty. $1,299. Loviél Computer Corp., 5599 W. 78th St., Edina, MN 55439. 612-835-3553. (Apr '92)

Loviél M210QUZF ★★★

This SCSI hard drive is poorly

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★

built but offers good performance. Both SCSI termination and fuse are internal. Internal mechanism is Plus Impulse 210S. Actual capacity using included SCSI Director formatter is 197.3 MB. Two-year warranty. $1,299. Loviél Computer Corp., 5599 W. 78th St., Edina, MN 55439. 612-835-3553. (Apr '92)

Loviél Maxcess 105e ⭐⭐⭐⭐

This portable hard drive uses a Quantum LP105S internal mechanism and offers fast performance. Actual formatted capacity is 100 MB. Fuse is internal. Software bundled is excellent Norton Utilities. Formatting utility provided is SCSI Director 1.7.3. $740. Loviél Computer Corp., 5599 W. 78th St., Edina, MN 55439. 612-835-3553. (Nov '91)

MacDirect 105MB ⭐⭐⭐

This affordable external hard drive uses a Fujitsu M2616SA internal mechanism. Slow. Actual formatted capacity is 101 MB. Bundled with SCSI Commander software. Formatting utility provided is Dataware 2.0. $495 direct. MacDirect Corp., 5251 W. 73rd St., Edina, MN 55439. (800) 621-8461 or (612) 832-5706. (Nov '91)

MacProducts Magic 1.2 Gigabyte HD ⭐⭐⭐⭐

The MacProducts Magic 1.2 Gigabyte HD hard drive has a formatted capacity of 988 MB and an average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the Disk Manager Mac 2.23 SCSI driver. Software provides backup and password-protection features. SCSI-ID selection is via external button or software, and SCSI termination uses an external plug. Includes 10 MB of shareware. $1,999 direct. MacProducts USA, Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (July '91)

MacProducts Magic 210 ⭐⭐⭐½

This SCSI hard drive is well built and includes AC outlets, but SCSI termination is internal. Average performance. Internal mechanism is Plus Impulse 210S. Actual capacity using included Disk Manager Mac formatter is 197.3 MB. Two-year warranty. $739 direct. MacProducts USA, Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (Apr '92)

MacProducts Magic 40MB ⭐½

The Magic 40MB is a 40-MB external SCSI hard drive based on the fast, reliable Quantum P40S mechanism. The test unit had unshielded plastic SCSI connectors and relied on software to select SCSI ID. The absence of an external SCSI-ID selection switch isn't a problem in a single setup but is potentially hazardous to data if you swap among multiple hard drives. Good software and 11 MB of bundled shareware. SCSI termination is external. $299 direct. MacProducts USA, Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (Apr '91)

MacProducts MagicDrive 105LP External ⭐⭐⭐½

This affordable hard drive uses a Quantum LP105S internal mechanism and offers fast performance. Actual formatted capacity is 101 MB. Fuse and SCSI termination are internal. Bundled with SCSI bus software, StuffIt, Disinfectant, and 10 MB of shareware. Formatting utility provided is Disk Manager Mac 2.24. $470 direct. MacProducts USA, Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (Nov '91)

MacTel HD Index 210MB ⭐⭐⭐

This affordable SCSI hard drive has adequate construction but poor documentation. SCSI termination is internal. Good performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity after formatting with included Index HD Utilities Installer is 197.3 MB. Bundled with Backmatic and AutoSave. Two-year warranty. $749 direct. MacTel Technology, 3007 N. Lamar Blvd., Austin, TX 78705. 800-950-8411 or 512-451-2600. (Apr '92)

MacTel HD Index 105MB ⭐⭐⭐½

This affordable external hard drive uses a Quantum LP105S internal mechanism. Average performance. Actual formatted capacity is 101 MB. SCSI termination can be external or internal. Bundled with BackMatic, AutoSave, and 14 MB of shareware. Formatter provided is Index HD Utilities. $449 direct. MacTel Technology, 3007 N. Lamar Blvd., Austin, TX 78705. 800-950-8411 or 512-451-2600. (Nov '91)

MacTown DataStor 210 MB ⭐⭐⭐½

This affordable SCSI hard drive is well built but has poor documentation. Good performance. Internal mechanism is Quantum ProDrive 210S. SCSI termination is internal. Actual capacity using included Dataware formatter is 197.3 MB. Includes AC outlets. $659 direct. MacTown, 1431 S. Cherryvale Rd., Boulder, CO 80303. 800-338-4273 or 303-442-6767. (Apr '92)

MacTown DataStor 213 MB ⭐⭐⭐½

This affordable SCSI hard drive is well built but has poor documentation. Adequate performance. Internal mechanism is Maxtor LXT-213SY. SCSI termination is internal. Actual capacity using included Dataware formatter is 200.6 MB. Includes AC outlets. $699 direct. MacTown, 1431 S. Cherryvale Rd., Boulder, CO 80303. 800-338-4273 or 303-442-6767. (Apr '92)

MacTown DataStor HM1.2/15M ⭐⭐⭐⭐½

The MacTown DataStor HM-1.2/15M is a fast 1-gigabyte hard drive with a formatted capacity of 990 MB. Has an average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides very good performance with the StorageWare 1.3b13 SCSI driver. Software provides backup and partitioning capabilities. SCSI-ID selection is via external button, but SCSI termination is internal. Version HM1.2/15M reviewed. Version HM1050/15-E shipping. $2,079. MacTown, 1431 S. Cherryvale Rd., Boulder, CO 80303. 800-338-4273 or 303-442-6767. (July '91)

MicroNet MS200 ⭐⭐⭐½

This affordable SCSI hard drive is poorly built but includes good SCSI cable and good documentation. Fuse is internal. Adequate performance. Internal mechanism is Maxtor LXT-213SY. Actual capacity using included MicroNet Utilities 5.17 formatter is 200.7 MB. Version MS200 reviewed. Version MS200x shipping. $1,195. MicroNet Technology, Inc., 20 Mason, Irvine, CA 92718. 714-837-6033. (Apr '92)

MicroNet SB-1000NP ⭐⭐⭐⭐½

The MicroNet SB-1000NP is a fast 1-gigabyte hard drive with a formatted capacity of 987 MB. Has an average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the MicroNet Utility 5.0.3 SCSI driver. Software allows password-protection, backup, and A/UX-compatible-partitioning functions. SCSI-ID selection is via external button, and SCSI termination uses an external plug. Quiet, temperature-controlled fan. Included SCSI-2 NuPort card optimizes SCSI throughput via NuBus. Requires Mac II series. $5,095. MicroNet Technology, Inc., 20 Mason, Irvine, CA 92718. 714-837-6033. (July '91)

MicroNet SBT-1288NP ⭐⭐⭐⭐½

The MicroNet SB-1000NP is a very fast 1-gigabyte hard drive with a formatted capacity of 1,266 MB. Has an average seek time of 13 milliseconds. Based on a pair of Seagate Wren-Runner 2 mechanisms. Provides good performance with the MicroNet Utility 5.0.3 SCSI driver. Software allows password-protection, backup, and A/UX-compatible-partitioning functions. SCSI-ID selection is via external button, and SCSI termination uses an external plug. Quiet, temperature-controlled fan. Included NuPort card optimizes SCSI throughput via NuBus. Requires Macintosh II series. $9,190. MicroNet Technology, Inc., 20 Mason, Irvine, CA 92718. 714-837-6033. (July '91)

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Microtech Europa 40
$4\frac{1}{2}$

The elegant Microtech Europa 40 is a 40-MB external SCSI hard drive based on the fast, reliable Quantum P40S mechanism. Average performance. SCSI-ID selection is external, but SCSI termination is internal. Good value for moderate price. Trade-in plan gives credit for drives swapped for new Microtech drives. Five-year warranty. $569. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (Apr '91)

Microtech N320 4

The Microtech N320 is a compact hard drive with a formatted capacity of 330 MB. Average seek times and throughput rate. Good software and support. $2,299. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (Dec '90)

Microtech Nova N120 4

This external hard drive uses a Quantum ProDrive 120S internal mechanism and offers fast performance. Actual formatted capacity is 115 MB. Bundled with excellent Norton Utilities. Formatting utility provided is Microtech HD Formatter V3.29 R202. Five-year warranty. $1,249. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (Nov '91)

Microtech Nova N200
$3\frac{1}{2}$

This well-built SCSI hard drive includes good SCSI cable and good documentation. Internal mechanism is Quantum ProDrive 210S. Actual capacity using included Hard Disk Formatter is 197.3 MB. Bundled with excellent Norton Utilities. Five-year warranty. $1,699. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (Apr '92)

Microtech Nova N1000
4

The Microtech Nova N1000 is a 1-gigabyte hard drive with a formatted capacity of 988 MB and average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the Microtech HDF 3.27 SCSI driver. Bundled software includes Norton Utilities for the Macintosh and Total Recall. SCSI-ID selection is via external button, but SCSI termination is internal. Five-year warranty. $4,899. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (July '91)

Mirror M40 4

The well-built Mirror M40 is a 40-MB external SCSI hard drive based on the fast, reliable Quantum P40S mechanism. Average performance. Solid construction and a low profile. SCSI-ID selection and SCSI termination are external, and two switched AC outlets are provided. Unfortunately, SCSI-ID switch allows "illegal" numbers 7 through 9. Bundled software includes 11 MB of shareware. $457. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (Apr '91)

Mirror M210 4

This SCSI hard drive is well built and includes good SCSI cable but has an unshielded power supply. Good performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity formatted with included Mirror Media Manager is 197.3 MB. Includes AC outlets. Bundled with Gofer, Inside Information, and 10 MB of shareware. Two-year warranty. $829 direct. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (Apr '92)

Mirror MP105 4

This external hard drive uses a Quantum LP105S internal mechanism. Average performance. Actual formatted capacity is 102 MB. Includes two AC power outlets. Bundled with MediaManager, Volume Back-Up, and 10 MB of shareware. Formatting utility provided is DK Research 2.04. $497 direct. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (Nov '91)

Mirror MP290 $4\frac{1}{2}$

The Mirror MP290 is a 291-MB hard drive. Long seek times and low throughput rate. Large case. $1,497. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (Dec '90)

Optima Concorde 1050
4

The Optima Concorde 1050 is a 1-gigabyte hard drive with a formatted capacity of 988 MB and average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the DiskInit 2.1 SCSI driver. Software provides partitioning, password-protection, and file-recovery capabilities. SCSI-ID selection is via external button, and SCSI termination uses an external plug. $2,495. Optima Technology, 17526 Von Karman, Irvine, CA 92714. 714-476-0515. (July '91)

Optima DisKovery 200
$3\frac{1}{2}$

This SCSI hard drive is poorly built and has an internal fuse but includes good SCSI cable and good documentation. Good performance. Internal mechanism is Maxtor LXT-213SY. Actual capacity using included Optima DiskMount formatter is 200.6 MB. Bundled with disk-mirroring software. $995. Optima Technology, 17526 Von Karman, Irvine, CA 92714. 714-476-0515. (Apr '92)

Optima MiniPak 200 $3\frac{1}{2}$

This compact SCSI hard drive is poorly built and has an internal fuse but includes good SCSI cable and good documentation. Good performance. Internal mechanism is Maxtor LXT-213SY. Actual capacity using included Optima DiskMount formatter is 200.6 MB. Bundled with disk-mirroring software. $995. Optima Technology, 17526 Von Karman, Irvine, CA 92714. 714-476-0515. (Apr '92)

Optima MiniPak 310 4

The Optima MiniPak 310 is a compact 311-MB hard drive. Long seek times. Good software. Small case. $1,195. Optima Technology, 17526 Von Karman, Irvine, CA 92714. 714-476-0515. (Dec '90)

PCPC MacBottom 105 3

This rugged external hard drive uses a Quantum LP105S internal mechanism. Good performance. Actual formatted capacity is 101 MB. Has internal fuse and permanently-attached 25-pin SCSI cable. Bundled with HFS Backup 3.5, SuperDisk Lite, and TouchBase. Formatting utility provided is SCSITools 2.1.5-319. $549 direct. PCPC (Personal Computer Peripherals Corp.), 4 Daniels Farm Rd., Ste. 326, Trumbull, CT 06611. 800-622-2888. (Nov '91)

PCPC MacBottom 50
$4\frac{1}{2}$

The well-designed, inexpensive MacBottom 50MB is a 50-MB external SCSI hard drive based on the fast Quantum LP52S mechanism. The low-profile case fits well under a Mac Classic. SCSI-ID selection is external, but SCSI termination is internal. Power-on and drive-activity indicator lights are provided. Unfortunately, this single-port drive has a 25-pin nondetachable cable and the SCSI-ID switch allows "illegal" numbers 7 through 9. $399. PCPC (Personal Computer Peripherals Corp.), 4 Daniels Farm Rd., Ste. 326, Trumbull, CT 06611. 800-622-2888. (Apr '91)

PLI PL 1.2 Gigabyte 4

The PLI PL 1.2 Gigabyte is a hard drive with a formatted capacity of 990 MB and average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the PLI Formatter 3.0 SCSI driver. SCSI-ID selection is via external dial, and SCSI termination uses external DIP switches. Includes PLI Turbo Utilities for partitioning, optimizing, and backup functions. $4,999. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (July '91)

PLI PL 40 Turbo 4

The PLI PL 40 Turbo 40-MB external SCSI hard drive is based on the fast, reliable

MICE RATINGS 1 $1\frac{1}{2}$ 2 $2\frac{1}{2}$ 3 $3\frac{1}{2}$ 4 $4\frac{1}{2}$ 5

THE LEAFSCAN 35 AND 45



Photograph by Peter de Lory. © Copyright 1991.

The Unrivaled Standard of Excellence

THE LEAFSCAN 35 AND 45 are state-of-the-art scanners for color or black and white transparencies and negative films, offering the user unsurpassed dynamic range and resolution at a very affordable price. They are capable of capturing all the information from an image down to the film grain. Their superb sensitivity allows them to record the finest gradations at both ends of the spectrum, within the highlights and within the shadows of a photograph. The Leafscan 45 is designed to handle a variety of industry-standard formats, ranging from 35mm. to 4"x5". The Leafscan 35 and 45 operate as intelligent computer peripherals through industry standard interfaces. Their architecture is designed for maximum efficiency, with a high-speed internal DSP (Digital Signal Processor) offloading the central Intel 80188 Command Processor to allow automatic operation and superfast data throughput.

"Best Scanner of the Year"
Editor's Choice Award
MacUser Magazine
1991

Leaf Systems, Inc.

250 Turnpike Road ▪ Southborough, MA 01772 ▪ (508)460 8300 ▪ FAX (508)460 8304

CIRCLE 240 ON READER SERVICE CARD.

THE LEAFSCAN 35 AND 45

SPECIFICATIONS

PHYSICAL & ELECTRICAL

- Convenient desktop footprint:
 Leafscan 45 = 16"x16"x 29"(height).
 Leafscan 35= 14" by 10"x 19" (height).
- Weight:
 Leafscan 45= 80 lbs.
 Leafscan 35= 30 lbs.
- Leafscan 45 includes 3 standard Beseler negative carriers: a) 35mm. film, b) 2 ¼" film, c) 4"x5" film. Extra cost options: a) Beseler carrier for 35mm. mounted slides, b) custom Leaf rotating carrier from 35mm up to 4"x5" film. This custom holder allows slides to be physically rotated in the scanner in infinite increments, eliminating the need to electronically rotate images in the computer.
- Leafscan 35 includes 2 film holders:
 a) 35mm. mounted slides, b) 35mm film strips.
- Leafscan 35: Autoswitching 110-220 vac, 50-60 Hz.
 Leafscan 45: Specify 110 vac or 220vac, 200 W.
- FCC Class A approved.
 Designed to comply with UL, CSA, VDE.
- Designed to operate in a 70 degrees Fahrenheit environment, non-condensing. Rapid changes in temperature and extended operation above 80 or below 50 degrees Fahrenheit should be avoided.

OPTICAL

- 6000 element Loral CCD, with 16 bits output per color per pixel.
- High quality color-corrected Rodenstock Apo-Rodagon 75mm. flat field copying lens.
- Triband Phosphorescent lamp with narrowband emissions matched to the characteristics of film. The built-in calibration process eliminates any color cast in the illumination.
- Red, Green, Blue and Neutral Density filters.

SOFTWARE TO OPERATE SCANNER WITH A HOST COMPUTER:

- Available for both standard platforms: Macintosh (24-bit color systems only, 8MB RAM recommended) and IBM-PC or Compatibles (24-bit, Windows 3.1 or later only).
- Operates scanner, performs calibration, sets black and white level automatically before each scan, allows fast preview of full frame, arbitrary user cropping, and highlight, midtone and shadow adjustment independently for each color. Allows users to exclude unwanted highlights or shadows in the "Autoranging" calculation. Creates industry standard TIFF files.

INTERNAL PROCESSORS

- Intel 80188 Command Processor.
- Motorola 56000 DSP for Data Correction and Averaging.

SCANNER PERFORMANCE

- Variable spatial resolution to a maximum of up to 5080 dpi. Typical resolution at 1:1 magnification is 45 line pairs/mm for color, and 50 line pairs/mm for black-and-white.
- The scanner records 48 bits per pixel, with the software enabling users to accept all 48 bits, or to select the lookup table desired to convert 48 bits to 24 bits (custom lookup tables can be created for each image). The minimal dynamic range is 3,000:1 (densities to 3.5), and the typical dynamic range is 5,000:1 (densities of 3.7). The scanner calibrates dark level automatically before each scan which, combined with the built-in calibration feature and exceptional dynamic range, results in scans free of artifacts (e.g., streaking) even in extreme shadow and highlight areas.
- Scanner operates at high speed: 12 ms. per scan line in most cases.

COMPUTER INTERFACE

- GPIB for both user commands to the scanner, and data back from the scanner to the host.
- User accessable switch on the rear panel allows a specific ID to be set, enabling daisy-chaining of multiple peripherals on a single GPIB interface card.
- SCSI interface.
- Superfast transfer at 400Kbytes per second for GPIB interface, 600Kbytes per second for SCSI.

CUSTOMIZABLE

- Both the Leafscan 35 and Leafscan 45 can be easily adapted for special applications, allowing custom film holders, lenses, etc.
- Leafscan software comes in a user-replaceable ROM (Read Only Memory) cartridge, installed at the rear of the unit. As Leaf Systems further improves the scanner performance, upgrades can be installed directly by users without removing any panels or parts, simply by replacing the cartridge with an updated one.



250 Turnpike Road, Southborough, MA 01772
Phone (508) 460 8300 FAX (508) 460 8304

All software and hardware products mentioned are trademarks of their respective manufacturers.

CIRCLE 240 ON READER SERVICE CARD.

Quantum P40S mechanism. Drive uses unlabeled DIP switches for external SCSI termination. Low profile and good construction, with external SCSI-ID selection. Good formatting software and 9 MB of bundled shareware. $599. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Apr '91)

PLI PL200 Turbo Quantum ⭐⭐⭐½

This SCSI hard drive is well built but has poor documentation. Good performance. Internal mechanism is Quantum ProDrive 210S. Fuse is internal. Actual capacity using included PLI Formatter software is 197.3 MB. Bundled with 12 MB of shareware. $1,199. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Apr '92)

PLI PL320F Turbo ⭐⭐⭐⭐

The PLI PL320F Turbo is a fast 320-MB hard drive with short seek times and average throughput rate. Large case. Good support. $2,799. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Dec '90)

PLI Quantum 105 ⭐⭐⭐

This external hard drive uses a Quantum LP105S internal mechanism. Good performance. Actual formatted capacity is 105 MB. SCSI termination is externally switchable. Software bundled is Turbo Back, Turbo Cache, Turbo Optimizer, Turbo Spool, and 16 MB of shareware. Formatting utility provided is PLI Formatter 3.1. $899. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Nov '91)

Procom MD 320 ⭐⭐⭐⭐

The Procom MD 320 is a 323-MB hard drive. Short seek times and high throughput rate. $1,995. Procom Technology, Inc., 2181 Dupont Dr., Irvine, CA 92715. 800-800-8600 or 714-852-1000. (Dec '90)

Relax Hard Plus 1.0 Gigabyte ⭐⭐⭐½

The Relax Hard Plus 1.0 Gigabyte hard drive has a formatted capacity of 1,000 MB and average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the Relax 1.10 SCSI driver. Software provides password-protection, encryption, and backup functions. SCSI-ID selection is via external button, and SCSI termination uses an external plug. Diversified I/O 2.01 SCSI driver necessary for partitioning. Version 1.0 Gig Plus reviewed. Version 1.0 Gig Vista shipping. $1,699 direct; SCSI driver, $59. Relax Technology, Inc., 3101 Whipple Rd., Ste. 22, Union City, CA 94587. 510-471-6112. (July '91)

Rodime Cobra 100e ⭐⭐

This external hard drive uses a Rodime RO3128TS internal mechanism. Slow. Actual formatted capacity is 105 MB. Includes two AC power outlets. SCSI termination and fuse are internal. Bundled with excellent Redux backup software. Formatting utility provided is Cobra Driver 1.14. $889. Rodime Systems, Inc., 7700 W. Camino Real, Boca Raton, FL 33433. 800-227-4144 or 407-391-7333. (Nov '91)

Rodime Cobra 210e ⭐⭐⭐

This SCSI hard drive is poorly built, but the bundled software and documentation are good. Has unshielded power supply, and both fuse and SCSI termination are internal. Average performance. Internal mechanism is Maxtor LXT-213SY. Actual capacity using included Cobra Driver Utility formatter is 206 MB. Bundled with MacTools Deluxe. Two-year warranty. $1,419. Rodime Systems, Inc., 7700 W. Camino Real, Boca Raton, FL 33433. 800-227-4144 or 407-391-7333. (Apr '92)

Rodime Cobra 330e ⭐⭐⭐⭐

The Rodime Systems Cobra 330e is a 345-MB hard drive with long seek times, average throughput, and two AC outlets on the rear panel. $2,159. Rodime Systems, Inc., 7700 W. Camino Real, Boca Raton, FL 33433. 800-227-4144 or 407-391-7333. (Dec '90)

Rodime Cobra 1000e ⭐⭐⭐½

The Rodime Cobra 1000e is a 1-gigabyte hard drive with a formatted capacity of 990 MB and average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the Cobra 1.1.3 SCSI driver. SCSI-ID selection is via external DIP switches. Internal SCSI termination. Includes Redux software for partitioning, password protection, encryption, and backup. $4,299. Rodime Systems, Inc., 7700 W. Camino Real, Boca Raton, FL 33433. 800-227-4144 or 407-391-7333. (July '91)

Saturae Proline 200 ⭐⭐⭐⭐½

This SCSI hard drive is fast, well built, and has good documentation. Internal mechanism is Hewlett-Packard C2233. Actual capacity using included Dataware formatter is 221.6 MB. Includes AC outlets. Five-year warranty. Version 200 reviewed. Version 220hz shipping. $819 direct. Saturae Corp., 148 Richdale Ave., Cambridge, MA 02140. 800-728-8723 or 617-661-8166. (Apr '92)

Storage Dimensions MacinStor 205 ⭐⭐⭐½

This SCSI hard drive has adequate construction quality but includes good SCSI cable and good documentation. Good performance. Internal mechanism is Maxtor LXT-213SY. Actual capacity using included MacinStor formatter is 200.7 MB. Fuse is internal. Two-year warranty. Version 3.02 reviewed. $1,509. Storage Dimensions, Inc., 1656 McCarthy Blvd., Milpitas, CA 95035. 408-954-0710. (Apr '92)

Storage Dimensions MacinStor 1020-S1 ⭐⭐⭐⭐

The MacinStor 1020-S1 is a 1-gigabyte hard drive with a formatted capacity of 999 MB and average seek time of 15 milliseconds. Based on the Seagate ST41200NM mechanism. Provides good performance with the MacinStor 3.0 SCSI driver. SCSI-ID selection is via external dial, and SCSI termination uses an external plug. Includes MacTools Deluxe for file recovery, backup, optimizing, password protection, and partitioning software. Mounts all partitions properly under AppleShare. Two-year warranty. Excellent manual. $6,799. Storage Dimensions, Inc., 1656 McCarthy Blvd., Milpitas, CA 95035. 408-954-0710. (July '91)

Third Wave 210 MB Hard Drive ⭐⭐⭐½

This affordable SCSI hard drive is poorly built but has good documentation and good performance. Internal mechanism is Quantum ProDrive 210S. SCSI termination is internal. Actual capacity using included Disk Manager Mac formatter is 197.3 MB. Two-year warranty. $749 direct. Third Wave Computing, Inc., 1826-B Kramer Ln., Austin, TX 78758. 800-284-0486 or 512-832-8282. (Apr '92)

TMS Peripherals Pro210 ⭐⭐⭐⭐

This affordable SCSI hard drive is well built but has poor documentation. SCSI termination is internal. Good performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity when formatted using included TMS Diskwriter/Formatter software is 197.3 MB. Bundled with 26 MB of shareware. Includes AC outlets. Two-year warranty. Version Pro210 reviewed. Version Pro 240LPS shipping. $649 direct. TMS Peripherals, 1120 Holland Dr., Ste. 16, Boca Raton, FL 33487. 800-275-4867 or 407-998-9928. (Apr '92)

Total Peripherals Q40X ⭐⭐⭐

The Total Peripherals Q40X is a 40-MB external SCSI hard drive based on the fast, reliable Quantum P40S mechanism. The model we tested had a sturdy metal case and good performance. SCSI-ID selection is via external push button or software. However, SCSI termination is internal, and SCSI connectors are 25-pin instead of the more conventional 50-pin. $529. Total Peripherals, Inc., 1 Brigham St., Marlboro, MA 01752. 508-460-0764. (Apr '91)

Tulin A-Hive Hard Drive 1GB ⭐⭐⭐⭐

The Tulin A-Hive Hard Drive 1GB is a 1-gigabyte hard drive

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

with a formatted capacity of 990 MB and average seek time of 15 milliseconds. Based on the Micropolis 1598-15 mechanism. Provides good performance with the DataWare 1.3b13 SCSI driver. Software provides user-selectable interleave and partitioning capabilities. SCSI-ID selection is via external DIP switches, and SCSI termination uses an external plug. Choice of 36-inch or 72-inch SCSI cabling. $1,959. Tulin Technology, 2156H O'Toole Ave., San Jose, CA 95131. 408-432-9057. (July '91)

Tulin A-Hive Jr 120 ⭐⭐⭐½
This portable hard drive uses a Quantum ProDrive 120S internal mechanism. Average performance. Actual formatted capacity is 120 MB. Internal fuse. No software bundled. Formatting utility provided is SCSI Commander 2.0. $499. Tulin Technology, 2156H O'Toole Ave., San Jose, CA 95131. 408-432-9057. (Nov '91)

Tulin Hive Jr 210 MB ⭐⭐⭐
This SCSI hard drive is poorly built and has poor documentation. Good performance. Internal mechanism is Quantum ProDrive 210S. Actual capacity using included Spot On formatter is 197 MB. Fuse is internal. $699. Tulin Technology, 2156H O'Toole Ave., San Jose, CA 95131. 408-432-9057. (Apr '92)

VCP 105 ⭐⭐⭐½
This affordable external hard drive uses a Quantum LP105S internal mechanism. Good performance. Actual formatted capacity is 100 MB. Includes two AC power outlets. SCSI termination is internal. No software bundled. Formatting utility provided is Neuron Inc. Installer. Poor documentation. $529 direct. VCP Computer Products, 1320-A Hancock St., Anaheim, CA 92807. 800-447-6350 or 714-779-9600. (Nov '91)

Wholesale 54 105Q ⭐⭐⭐½
This affordable external hard drive uses a Quantum ProDrive 105S internal mechanism. Adequate performance. Actual formatted capacity is 105 MB. SCSI termination and fuse are internal. No software bundled. Formatting utility provided is Disk Manager Mac 2.24. $389 direct. Wholesale 54, 2415 S. Roosevelt, Tempe, AZ 85282. 800-659-0054. (Nov '91)

STORAGE SYSTEMS/ REMOVABLES

ADIC MacBack DAT ⭐⭐⭐
ADIC MacBack DAT includes MacBack network backup-server software, client software, and the solidly built ADIC MacBack DAT cassette drive. Can restore to clients over the network and allows client-controlled file selection. Slow and heavy, and requires both client and backup-server applications to be running. Software supports other tape drives. Version 2.02 software reviewed. Requires Macintosh Plus or later and a hard drive. $4,995. ADIC (Advanced Digital Information Corp.), 14737 N.E. 87th St., Redmond, WA 98073. 800-336-1233 or 206-881-8004. (Oct '91)

APS 45 MB Removable ⭐⭐⭐
APS offers toll-free tech support for this SyQuest drive, which comes with rudimentary documentation but lots of shareware. This drive's SCSI ID is changed via external DIP switches. Its cartridge has a capacity of about 44 MB. SyQuest technology offers speed and compatibility with an industry standard. $429 direct; twin drive, $799. APS (Alliance Peripheral Systems), 2900 S. 291 Hwy., Independence, MO 64057. 800-235-2750 or 816-478-8300. (Feb '91)

APS Archive Python ⭐⭐⭐⭐
APS Archive Python includes the fast, compact Archive 4330 DAT cassette drive and Retrospect 1.2 backup software. Requires Macintosh Plus or later and a hard drive. $1,399 direct. APS (Alliance Peripheral Systems), 2900 S. 291 Hwy., Independence, MO 64057. 800-235-2750 or 816-478-8300. (Oct '91)

APS SyQuest 88 MB Drive ⭐⭐⭐⭐
Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good construction. Includes 2 AC outlets. Poor SCSI-cable design. Driver software formats cartridges at 83-MB capacity and supports partitioning and password protection. Comes with 18 MB of public-domain software. $539 direct. APS (Alliance Peripheral Systems), 2900 S. 291 Hwy., Independence, MO 64057. 800-235-2750 or 816-478-8300. (Jan '92)

CD Technology Porta-Drive ⭐⭐⭐⭐
This is a small, well-built, portable CD-ROM drive that offers good performance. Good audio software but limited volume control (upgrade to rotary switch planned). SCSI-ID selection is via push-wheel. External SCSI termination. On/off switch for external power supply. Version T3301 shipping. $795. CD Technology, Inc., 766 San Aleso Ave., Sunnyvale, CA 94086. 408-752-8500. (June '91)

Chinon CDA-431 ⭐⭐⭐⭐
This small, portable CD-ROM drive is well built but offers mediocre speed. SCSI-ID selection is via DIP switch. External SCSI-termination switch. $795. Chinon America, Inc., 660 Maple Ave., Torrance, CA 90503. 800-441-0222 or 310-533-0274. (June '91)

ClubMac 44 MB Removable ⭐⭐⭐
This SyQuest removable-cartridge drive has a quiet fan but also has a flexible case. Comes with rudimentary documentation. Supports A/UX drive partitioning and includes good software, cables, and a cartridge. SyQuest technology offers speed and compatibility with an industry standard. Cartridge has a capacity of about 44 MB. Requires System 6.03 or later. $415 direct. ClubMac, 3 Musick, Irvine, CA 92718. 800-258-2622 or 714-768-8130. (Feb '91)

CMS Enhancements MacStack SD45RM ⭐⭐⭐
This SyQuest removable-cartridge drive comes with excellent documentation and has an auto-switching power supply. Cartridge capacity is about 44 MB. Extended warranty is optional. This drive's SCSI ID is changed via external DIP switches. SyQuest technology offers speed and compatibility with an industry standard. $999; extended warranty, $119 a year. CMS Enhancements, Inc., 2722 Michelson Dr., Irvine, CA 92715. 714-222-6000. (Feb '91)

CMS Platinum 88MB ⭐⭐⭐½
Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good documentation and bundled software. Poor construction and SCSI-cable design. SCSI-ID selection uses DIP switch, and fuse is internal. Driver software formats cartridges at 84-MB capacity and supports partitioning, backup, password protection, data encryption, data recovery, disk optimizing, and diagnostics. $1,499. CMS Enhancements, Inc., 2722 Michelson Dr., Irvine, CA 92715. 714-222-6000. (Jan '92)

CMS Platinum DAT ⭐⭐⭐
CMS Platinum DAT includes the WangDAT 1330 DAT-cassette drive and AD-Mac Backup 1.1 backup software. Excellent hardware manual. Software has limited features and no activity log. Requires Macintosh Plus or later and a hard drive. $3,399. CMS Enhancements, Inc., 2722 Michelson Dr., Irvine, CA 92715. 714-222-6000. (Oct '91)

CubeFloppy ⭐⭐⭐½
The CubeFloppy is a compact 3.5-inch floppy drive that can be used with NeXT computers. Can initialize, mount, and unmount UNIX floppies via NeXT's Shell. Some UNIX knowledge required. Good manual. Reads DOS 720K and 1.4-MB disks — doesn't read or write Mac-formatted disks. Software can translate files being transferred and also format DOS disks. Version 1.4 reviewed. Version 2.9 shipping. Requires NeXT computer. With software, $680; software only, $550. Digital Instrumentation Technology, Inc., 127 Eastgate Dr., Ste. 20500, Los Alamos, NM 87544. 505-662-1482. (Oct '90)

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

You can manage a whole heap of things with Helix Express.*







Managing piles of information is child's play to Helix Express.

If your personal and business information management needs are simple at the moment, Helix Express is the perfect solution. It can do everything a basic information management program can do, *plus a whole heap more!*

Helix Express is ready for action right out of the box.

Our family of *Ready-to-Go Solutions* (included) gets you up and running quickly. With them, you can manage:

- time & billing
- customer, client or mailing lists
- inventory control
- personal contacts
- documents
- order entry and invoicing
- collections

...and much, much more!

Helix Express has the power to grow as your needs grow.

Because it's so easy to use (and because of its amazing flexibility) Helix Express is *the one and only solution* for people who need a flat file database now, and a relational database program in the future.

Now, wait a minute...who said anything about "flat file" and "relational" databases? And what's the difference, anyway?

Why you really, really should want a program that will do a "whole heap more."

In a flat file database program, you can perform simple functions like searching, reporting, and indexing.

For now, that may be all the capability you need. And Helix Express is the solution.

In the beginning, you might use Helix Express to...

...keep track of customers.

As your business grows, you can also use it to...

...keep track of customers and *...produce invoices.*

Of course, you'll continue to be more and more successful. And when you are, you can use Helix Express to..

...keep track of customers

...produce invoices and

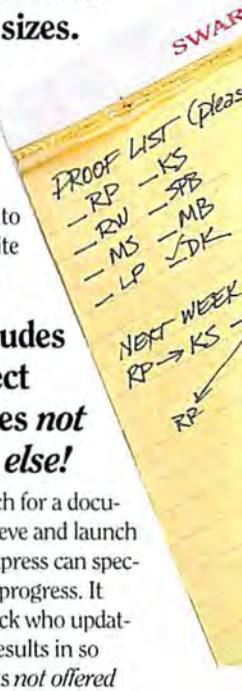
...control your inventory and receivables.

Pretty soon you'll have more and more people working for you (although not as many as you would need without Helix Express).

And guess what? They can use Helix Express, too, because...

...it's also a multi-user program.

Helix Express is the complete database solution for Mac users of all sizes.



It's "kidstuff" for you to start using it! Most relational databases require you to use programming language to design an application. With Helix Express, you don't need to learn a single command or write a single line of program code.

What's more, it includes document and project management features *not available anywhere else!*

It allows you to store and search for a document by a key word, then retrieve and launch it in its native format. Helix Express can specify workflow and track project progress. It even has version control to track who updated a document, and when. It results in so many more timesaving benefits *not offered by any other database program* that you'll just have to call us to learn more about them!

Let Helix Express manage your "whole heap of things" now, and in the future.



** Except babies. For that, you're on your own.*

CIRCLE 201 ON READER SERVICE CARD.

1-800-364-HELIX

HELIX TECHNOLOGIES
4100 COMMERCIAL AVENUE. NORTHBROOK, IL 60062

COMPETITORS UPGRADE only $199 when you send us the first page of any database manual. (Double Helix upgrade also available.) *Call for details!*

DaynaFile II ♦♦♦♦♦
DaynaFile II drive lets Macs read 3.5- and 5.25-inch DOS floppy disks. Supports Mac high-density disks and all PC formats. Using a special INIT, the drive's volume icon appears on the desktop and is accessed like any other external drive. New DaynaFile II version replaces popular — but heavy — original hardware design. Bundled DOS Mounter software lets Apple FDHD drives mount PC disks on the desktop. Version 2.0 software reviewed. Version 3.0 shipping. Requires Mac Plus or later. Dual drive, any configuration, $599. Dayna Communications, Inc., 50 S. Main St., Salt Lake City, UT 84144. 801-531-0600. (Oct '89) ★ '87 Eddy

Deltaic OptiServer 600 ♦♦♦½
OptiServer 600 is an erasable optical drive with software that maps out bad sectors and parks read/write heads. Extremely quiet. Few software utilities. $3,499. Deltaic Systems, 1701 Junction Ct., Ste. 302B, San Jose, CA 95112. 800-745-1240 or 408-441-1240. (Nov '90)

Denon DRD-253 ♦♦½
This CD-ROM drive has ponderous performance, lagging far behind most other drives. The built-in speaker provides good audio. Lacks audio software. Can be used as a standalone audio-CD player. A revised version was planned for mid-1992. $940. Denon America, 222 New Rd., Parsippany, NJ 07054. 201-575-7810. (Mar '90)

DGR 128REM ♦♦♦½
This affordable magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs and offers good construction. Internal mechanism is a MOST RMD-5100-S. Includes two switched AC outlets and one cartridge. Cartridge capacity after formatting is approximately 119 MB. Poor documentation. Bundled with Hard Disk ToolKit and Retrospect Remote. Formatter is HDT Primer. Version 1.0 reviewed. Version 2.0 shipping. $1,199 direct. DGR Technologies, Inc., 1219 W. Sixth St., Austin, TX 78703. 800-235-9748 or 512-476-9855. (July '92)

DPI 44 Removable ♦♦♦♦
The vertically mounted DPI 44 Removable is a SyQuest removable-cartridge drive with a sturdy metal case. Its diode-regulated fan ensures cool operation. Included cartridge has a capacity of about 44 MB. SyQuest technology offers speed and compatibility with an industry standard $570. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Feb '91)

DynaTek DAT 1300 ♦♦♦♦
DynaTek DAT 1300 includes the fast Archive 4520NT DAT-cassette drive and Retrospect 1.2 backup software. Requires Mac Plus or later and a hard drive. $1,795. DynaTek Automation Systems, Inc., 15 Tangiers Rd., Toronto, Ontario M3J 2B1 Canada. 416-636-3000. (Oct '91)

EMAC Metro 88R ♦♦♦½
Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers limited software. Has removable feet to allow vertical orientation. Driver software formats cartridges at 84-MB capacity and supports partitioning and password protection. $1,479. EMAC (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (Jan '92)

EMAC Metro CD ♦♦♦♦
This CD-ROM drive is solidly built but has very slow disc access. It has good audio software and an internal speaker. Caddy is difficult to insert. SCSI-ID selection is done via pushwheel. External SCSI termination. $599. EMAC (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (June '91)

EMAC Metro DAT ♦♦♦♦
EMAC Metro DAT includes the WangDAT 1300 DAT-cassette drive and Retrospect Remote 1.2 network-backup software. SCSI Sentry hardware feature protects drive and also provides termination power for Mac Plus. Poor performance in incremental-restore tests. Requires Mac Plus or later and a hard drive. $2,995. EMAC (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (Oct '91)

ETC 88R Removable Drive ♦♦♦♦
Based on the SyQuest SQ5110 mechanism, this affordable magnetic-cartridge drive offers limited software and poor documentation. Includes two AC outlets. Driver software formats cartridges at 85-MB capacity and provides diagnostics. $599; upgrade for 44-MB drive, $599. ETC Peripherals, Inc., 5426 Beaumont Ctr. Blvd., Tampa, FL 33634. 800-876-4382 or 813-884-2863. (Jan '92)

ETC DataPort 210 ♦♦½
Based on an older Quantum 210-MB mechanism, this moderately priced removable hard drive is reliable but slow. Includes portable, completely sealed hard-disk module and a stationary SCSI docking bay. Does not auto-mount. Uses formatting software or utility to mount volume after module insertion in docking bay. Good documentation. Requires Mac Plus or later. $1,179. ETC Peripherals, Inc., 5426 Beaumont Ctr. Blvd., Tampa, FL 33634. 800-876-4382 or 813-884-2863. (Nov '92)

FastBack Tape ♦♦♦♦½
The FastBack Tape package includes an FB120 tape drive (128-MB capacity), FastBack II 2.10, manuals for both, a SCSI terminator block, a preformatted DC 2110 minicartridge, and all necessary cables. Costly and a little slow compared with other devices, but if tape is your backup medium of choice, you'd be hard-pressed to find a more polished product. Requires Mac Plus or later. $1,395. Fifth Generation Systems, 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (July '90)

FWB HammerDAT 2000 ♦♦♦♦
FWB HammerDAT 2000 includes the WangDAT 1300 DAT-cassette drive and fast HammerBackup software. Bundled with Retrospect Remote network-backup software. Confusing manual. Requires Macintosh Plus or later and a hard drive. $2,549. FWB Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (Oct '91)

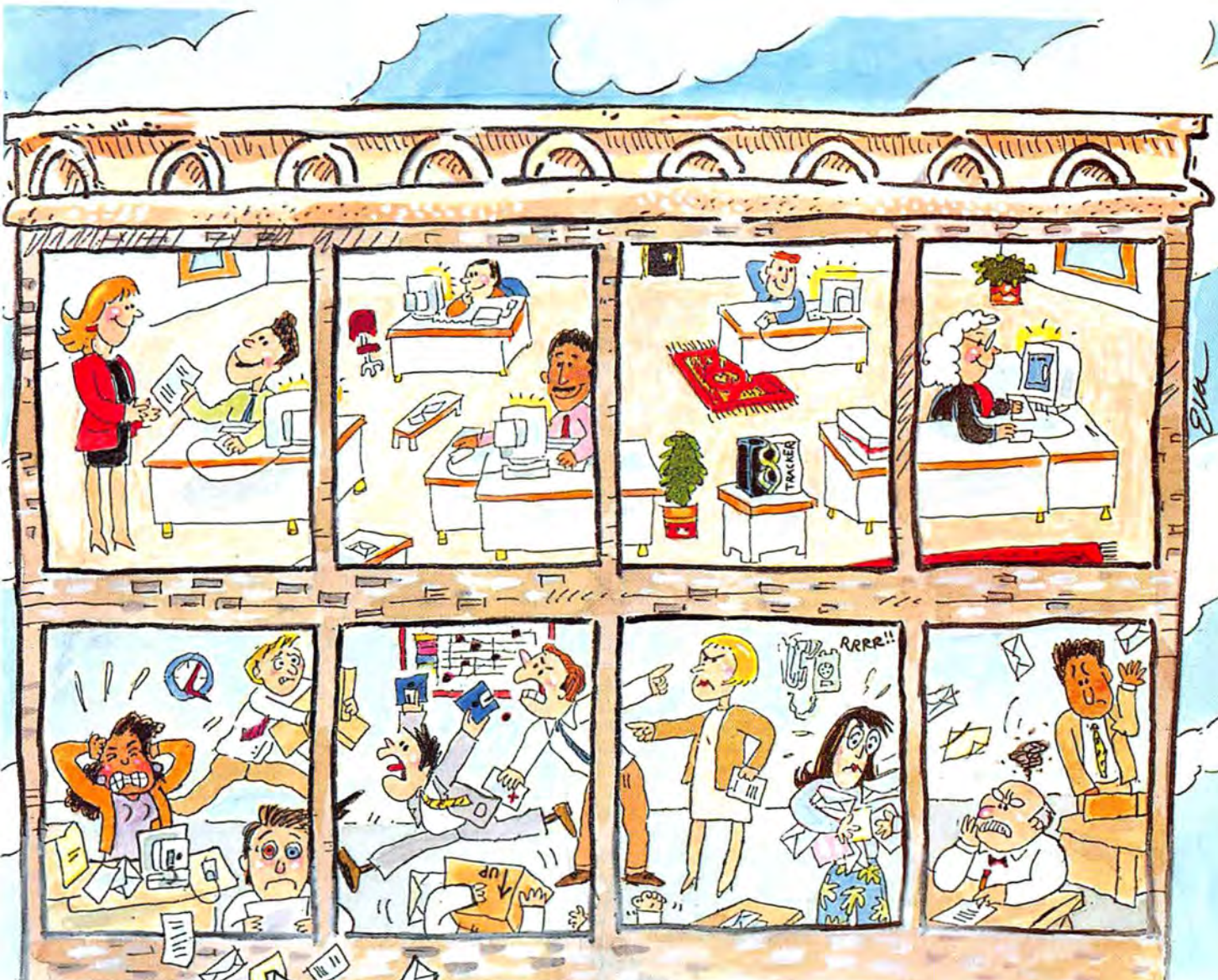
FWB HammerDisk 44 ♦♦♦♦½
The HammerDisk 44 is an excellent SyQuest removable-cartridge drive. Cartridge capacity is about 44 MB. It has a metal case, a well-designed power supply, external SCSI termination, effective cooling system, high-quality formatting software, and easy-to-use documentation. Outstanding speed. SyQuest technology offers compatibility with an industry standard. Includes Hard Disk ToolKit SCSI utility. Two-year warranty. $869. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (Feb '91)

FWB HammerDisk 600S ♦♦♦♦♦½
The Sony-based FWB HammerDisk 600S erasable optical drive is extremely fast. Software overrides copy protection. Has no auto-eject on dismount or shutdown. Includes Hard Disk ToolKit SCSI utility. Two-year warranty. $4,339. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (Nov '90)

FWB HammerDisk 88 ♦♦♦♦♦
Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good construction, documentation, and software. Driver software formats cartridges at 84-MB capacity and supports partitioning, password protection, data encryption, and diagnostics. Includes Hard Disk ToolKit SCSI utility. Two-year warranty. $1,099. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (Jan '92)

HDI CD-ROM ♦♦♦½
An inexpensive CD-ROM drive with good data performance. No preamp audio output and limited volume control. The SCSI-ID selection via DIP switch or jumpers is clumsy. External SCSI termination. Version 1.2 Chinon

MICE RATINGS ♦ ♦½ ♦♦ ♦♦½ ♦♦♦ ♦♦♦½ ♦♦♦♦ ♦♦♦♦½ ♦♦♦♦♦



Top-level document management.



Tracker makes mayhem manageable!

A groupware program that helps you control your work so it won't control you.

Helix Tracker: the only document management program of its kind based on the team approach to workflow. Tracker was designed specifically to help you work together effectively—to transform chaos into cooperation and collaboration. Designed for workgroups of 4 to 20 people, Tracker allows users in a workgroup to exchange ideas and documents by creating and assigning tasks...and by routing those tasks through the workflow process.

Tracker improves group productivity by tracking projects' progress as they move from user to user. You can check and track a task's status at any time. Maintain a complete audit trail for all tasks. Automatically save each version of a document, then store and retrieve it by key word.

Helix Tracker allows you to manage documents without forcing you to change the way you work. It's application-independent, and is compatible with all Mac applications. Tracker is a productivity-enhancement tool that helps you allocate resources more effectively, improve workgroup accountability and productivity—and meet more deadlines!

Have you ever wondered where to locate the most recent version of a document? Who created the last set of changes? Whether a job has been reviewed? Or the status of a particular task? Helix Tracker gives you the answer to these and dozens of other questions you need to know to control the paper blizzard and work effectively as a team.

Find out how Tracker can save you from the frenzy in your workgroup's workflow. Talk to one of our friendly groupware specialists, and ask for a free copy of "The Irresistible Dream of Groupware." Call us toll free today!



1-800-36-HELIX

708-205-1669 FAX: 708-291-7091

HELIX TECHNOLOGIES

4100 Commercial Avenue Northbrook, Illinois 60002

CIRCLE 176 ON READER SERVICE CARD.

reviewed. $577 direct. HDI (Hard Drives International), 1912 W. Fourth St., Tempe, AZ 85281. 800-488-0001 or 602-350-1128. (June '91)

HDI PowerDrive 44 Removable ⭐⭐⭐½

This SyQuest removable-cartridge drive has a sturdy metal case and comes with good software, toll-free technical support, and a cartridge. The test version lacked shielding on SCSI connectors. It comes with a cartridge that has a capacity of about 44 MB. SyQuest technology offers speed and compatibility with an industry standard. $449 direct; each additional cartridge, $79. HDI (Hard Drives International), 1912 W. Fourth St., Tempe, AZ 85281. 800-488-0001 or 602-350-1128. (Feb '91)

HDI PowerDrive 1.3 Gig DAT ⭐⭐⭐⭐

The HDI POWERDrive 1.3 Gig DAT includes the Archive 4520NT DAT-cassette drive and Retrospect 1.2 backup software. Internal SCSI termination. Fast performance. Version 1.3-GB reviewed. Version 2-GB shipping. Requires Mac Plus or later and a hard drive. $1,299 direct. HDI (Hard Drives International), 1912 W. Fourth St., Tempe, AZ 85281. 800-488-0001 or 602-350-1128. (Oct '91)

HDI PowerDrive Removable 88MB ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive has poor construction and limited software. SCSI termination is internal but accessible. Fuse is internal. Driver software formats cartridges at 80-MB capacity and supports partitioning. Toll-free phone support. $599 direct. HDI (Hard Drives International), 1912 W. Fourth St., Tempe, AZ 85281. 800-488-0001 or 602-350-1128. (Jan '92)

Iomega Bernoulli 90 ⭐⭐⭐⭐

Based on the reliable Bernoulli 90 mechanism, this magnetic-cartridge drive offers good construction and documentation, lots of bundled software, and good SCSI-cable design. Not compatible with SyQuest technology. SCSI termination is externally switchable. Fuse is internal. Driver software formats cartridges at 90-MB capacity and supports partitioning, backup, and diagnostics. Comes with 33 MB of public-domain software. Good support. Requires Macintosh Plus or later and Mac Interface Kit. $1,149; Mac Interface Kit, $49 (includes Backup software from Central Point) or $129 (includes Retrospect from Dantz Development); upgrade from 44-MB Bernoulli drive, $725. Iomega Corp., 1821 W. 4000 S., Roy, UT 84067. 800-456-5522 or 801-778-1000. (Jan '92)

Iomega Transportable 44 ⭐⭐⭐⭐½

For maximum reliability in a removable-cartridge drive — albeit with a high price, heavy weight, and slower performance — the Bernoulli Transportable 44 is an excellent choice. Best used for data transport, storage, and backup but not for constant spinning for hours or days at a time. Software can be set to spin down cartridges after a user-determined period of system inactivity. Software can also format a cartridge in the background. Bernoulli technology is established, but if you share data with many other users, a SyQuest drive might be preferable. Can be upgraded to the new Bernoulli 90 Transportable. $1,399; upgrade, $725. Iomega Corp., 1821 W. 4000 S., Roy, UT 84067. 800-456-5522 or 801-778-1000. (Feb '91)

Irwin 9131Se ⭐⭐⭐⭐

The Irwin 9131Se (formerly from Irwin Magnetic Systems) includes the Archive 4330 DAT-cassette drive and Retrospect 1.2 backup software. Compact case. Fast performance. Requires Mac Plus or later and a hard drive. $3,297. Maynard Electronics, Inc., 36 Skyline Dr., Lake Mary, FL 32746. 800-821-8782 or 407-263-3500. (Oct '91)

Kennect Drive 2.4 ⭐⭐⭐⭐½

The Drive 2.4 is a connector/drive combination when used with the Rapport connector attached to the external disk-drive port of a Mac Plus or SE. DOS 3.5-inch disks can be inserted into the Mac's internal drive and read through AFE. Supports Mac and PC-formatted disks. A control panel is used to manage all drive formats. Not compatible with Mac IIfx or Portable. Requires Mac Plus or later. Drive 2.4, $495; Rapport, $295. Kennect Technology, 3801 Charter Park Ct., Ste. D, San Jose, CA 95136. (Feb '90)

La Cie 45 MB Removable ⭐⭐⭐⭐

This SyQuest removable-cartridge drive is solidly built and has an auto-switching power supply. The drive is bundled with Norton Utilities for the Mac and powerful Silverlining disk-management software. Cartridges have a capacity of about 44 MB. SyQuest technology offers speed and compatibility with an industry standard. With cartridge, $649 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Feb '91)

La Cie Express Drive 240 ⭐⭐⭐⭐

Based on a Quantum 240-MB mechanism, this removable hard drive is fast and very easy to use. Includes portable, completely sealed hard-disk module and a stationary SCSI docking bay. Automatically mounts volume after module insertion in docking bay. Module also ejects when its icon is dragged into Trash. Good documentation. $1,348 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Nov '92)

Liberty 115 128MB-MO ⭐⭐⭐⭐

This affordable, portable, magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs. Comes with a carrying case. Internal mechanism is a MOST RMD-5100-S. SCSI termination and fuse are internal. Cartridge capacity after formatting is approximately 119 MB. Poor documentation. No bundled software. Formatter is SCSI Director. $1,499 direct. Liberty Systems, Inc., 160 Saratoga Ave., Ste. 38, Santa Clara, CA 95051. 408-983-1127. (July '92)

Liberty 88MB Removable Drive ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this affordable magnetic-cartridge drive has poor construction but good overall design. Fuse is internal. Driver software formats cartridges at 83-MB capacity and supports partitioning and diagnostics. Does not include cartridge. $799. Liberty Systems, Inc., 160 Saratoga Ave., Ste. 38, Santa Clara, CA 95051. 408-983-1127. (Jan '92)

Loviél Maxcess 88SYZF ⭐⭐⭐

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive has poor design and construction. SCSI termination and fuse are internal. Driver software formats cartridges at 83-MB capacity and supports partitioning, backup, password protection, data encryption, data recovery, and diagnostics. $1,126. Loviél Computer Corp., 5599 W. 78th St., Edina, MN 55439. 612-835-3553. (Jan '92)

MacLand SyQuest 44 MB ⭐⭐⭐

This moderately priced removable-cartridge drive has average performance and is bundled with archiving and file-restoration utilities. Comes with a cartridge that has a capacity of about 44 MB. SyQuest technology offers speed and compatibility with an industry standard. $399 without cartridge. MacLand, Inc., 4685 S. Ash Ave., Ste. H-5, Tempe, AZ 85282. 800-333-3353 or 602-820-5802. (Feb '91)

MacProducts Magic 128REM ⭐⭐⭐½

This affordable magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs and offers good construction. Internal mechanism is a MOST RMD-5100-S. Includes two switched AC outlets. Cartridge capacity after formatting is approximately 119 MB. Poor documentation. Bundled with Hard Disk ToolKit and Retrospect Remote. With one cartridge, $1,199 direct; Turbo version, $1,299. MacProducts USA,

MICE RATINGS ½ ½ ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

State-of-the-optical
Epson's MO drive



External Epson MO $1199

Transport, store and access multi-megabyte documents on low-cost, high-density MO cartridges with Epson's Magneto Optical Drive system. As an alternative to tape back up or other removable cartridge archive systems, Epson's MO stores 128MB on durable $48 diskettes. Carry them in your pocket, drop them in the mail to your output service—these cartridges can take a beating.

Helpful, knowledgeable sales associates

Toll-free technical Support

30-day money-back guarantee

Disk-for-disk replacement warranty

24-hour BBS with our latest software

Three-pass write assures data security

With the dependable security of a three-pass write, keep copies of scanned artwork, multimedia or large documents for future reference or emergency back up.

Easy-access archiving

Based on Epson's OMD-5010 mechanism, this state-of-the-art drive supports an average seek time of 35ms and sustained read times approaching 700KB per second.

The three-pass write occurs at approximately 250KB per second in a Mac environment, making it among the fastest 128MB MO units currently shipping.

Fully compatible with other MOs

This Epson MO is fully compatible with all ISO and ANSI specifications, so cartridges can be readily accessed on other-brand MO drives.

In a specially designed external enclosure (with extra cooling for reliable operation), APS's Epson MO is priced at $1199, including one MO cartridge.

An internal version for Mac Quadra 900 or 950 is $1099. Additional cartridges are available at $48; or $200 for a package of five.

The APS Epson MO carries a one-year manufacturer's warranty. Throw in APS's award-winning service and unlimited toll-free technical support and you've got the makings of a really great offer.

Go ahead and buy it

Move up to this next-generation, transportable storage solution. Call APS to order an Epson MO today!

It's here! Call today for a copy of APS's new accessories and supplies catalog, packed with the products you need for your Mac or PC. Check out APS's full selection of media, cables and desktop essentials. We stand behind each offering—because these are items we test and use in our own office!

1-800 235-2750

APS TECHNOLOGIES

Great Prices. Priceless Support!

TEAC I55: Best choice for personal tape back up



MACWORLD MW EDITORS' CHOICE

Macworld selected this TEAC I55 tape unit as its Editors' Choice in the personal back up category. With a back-up rate of 4.5MB per minute, this compact tape unit backs up I45MB per 60m cassette. Each unit includes Retrospect by Dantz, one 60m tape and a premium SCSI cable. With TEAC's one-year warranty plus APS's legendary service and support, what more could you ask?

Personally yours for $499

With data files consuming space on your hard drive as you update monthly reports—or finish chapters of your Great American Novel—you need a back up system to ease disk congestion and your mind.

At $499, this TEAC I55 measures up to *Macworld*'s most stringent standards for personal back up products, offering both value and performance.

Back up before you proceed

Your valuable data deserves to be securely archived. And this tape unit is the one to buy for individual needs at home—or at the office.

The TEAC I55 is covered by a one-year manufacturer's warranty, APS's exclusive drive-for-drive replacement policy and a 30-day, money-back guarantee.

Bundled with Retrospect, the standard in tape back-up software from Dantz Development (we include Sytos Plus with PC versions), this drive arrives on your desk with all necessary cables and one I55MB tape cartridge.

Plus you get the benefit of APS's knowledgeable technical support staff—on call toll-free to answer your questions six days a week.

Don't forget extra cartridges

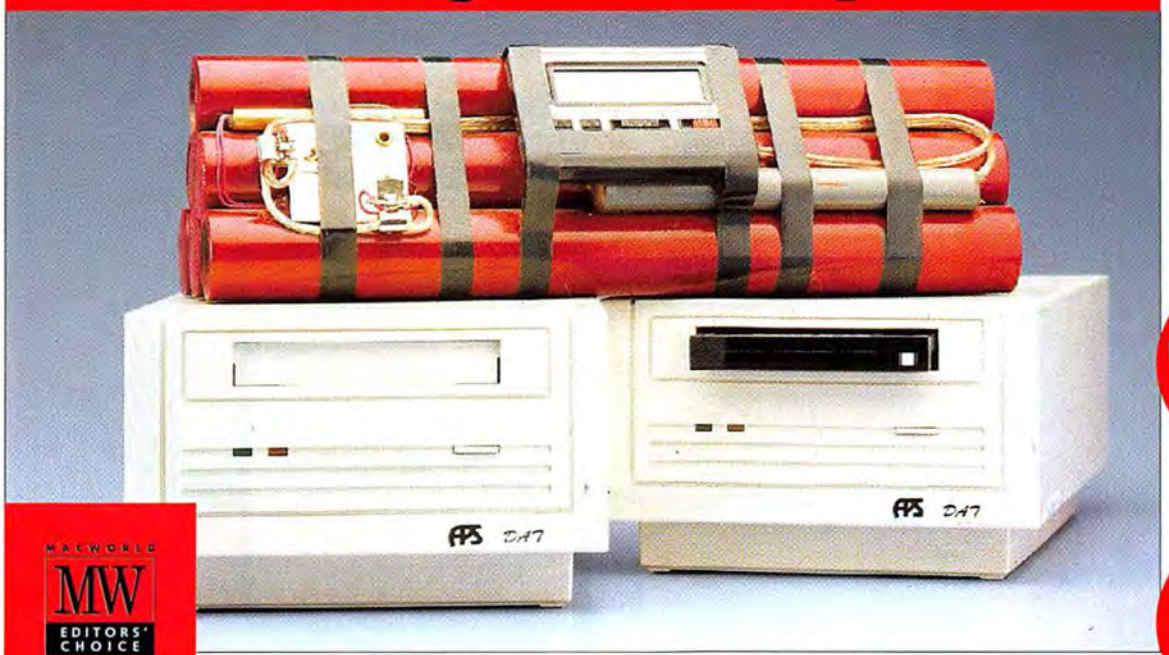
Order additional Maxell I55MB cartridges when you order your TEAC I55.

At $I9 each, or $I70 for I0, you'll be set to back up months of financials—or the rewrite, sequel, treatment and screenplay of that new novel.

Stock up and save on computer supplies and accessories now available through APS 's new catalog. We have great prices on premium diskette and tape media. Ask your sales associate to send out a copy—or inquire about any cabling, drive, media or back up product you currently need or use.

APS Technologies

APS Compression DAT $1699 blows away the competition



MACWORLD MW EDITORS' CHOICE

The *Macworld* Editors' Choice for high-capacity back up, APS's Compression DAT stores up to 5GB per 90m tape cartridge. Need fast, high-capacity back-up? This $1699 DAT offers one of the best archiving solutions on the market. Internal models for Quadra 900 and 950 are just $1599. Only need to squeeze 1.2 to 2GB onto a cartridge? Take a look at APS's non-compression DAT, now just $1399.

Helpful, knowledgeable sales associates

Toll-free technical support

30-day money-back guarantee

Disk-for-disk replacement warranty

24-hour BBS with our latest software

High-quality, high-density storage

This Archive Python-based SCSI digital audio tape drive which combines high capacity with exceptional performance is available in external configurations as well as internal options for Mac Quadra 900 and 950 models.

Quick access, dependable performance

Consistently rated tops by the leading computer magazines, APS's Compression DAT backs up at a rate as high as 14MB per minute, with non-compression units clocking in at up to 10MB per minute.

APS DATs carry a two-year manufacturer's warranty and APS's drive-for-drive replacement guarantee. These DATs also come bundled with Retrospect, the standard in tape back up software from Dantz Development (we include Sytos Plus with PC versions).

Easy-to-follow installation instructions for internal models, all necessary cables and one 60m tape cartridge are also included with each DAT.

Tech support six days a week

You also get the peace of mind of knowing that APS's knowledgeable technical support staff is ready and available to answer your questions – toll-free – six days a week.

Load up on media

If your emergency back up scheme requires that multiple tapes be stored off-site, make sure you start out with plenty of cartridges. Maxell DAT tapes are available in 60m and 90m 10-packs for $110 and $130, respectively.

Call APS today; add an APS DAT to your desktop or network tomorrow.

Be prepared for winter weather and intermittent power outages with a SOLA uninterruptible power supply. For as little as $140, you can buy yourself crucial minutes to save work and shut down your Mac. Call APS Technologies today for details on SOLA's entire line.

1-800 235-2750

APS TECHNOLOGIES

Great Prices. Priceless Support!

Big, quiet, fast
Maxtor 340 $699



External Maxtor 340 $769

APS's Maxtor LXT-340 offers a 128KB split RAM cache which speeds both reading and writing. At 16ms average seek and nearly 1.8 MB per second transfer rate, this is a real performance bargain.

The perfect external companion to any Macintosh at $769—or install it internally in most late model modular Macs for just $699. Don't miss this opportunity to get high performance storage and at a bargain price!

Maxtor has the power

With a formatted capacity of nearly 325MB, Maxtor's LXT-340 gives you room to spread out and expand your desktop.

Quicker and quieter than most drives in its size and price class, the 340 is one plug-and-play peripheral to consider for your ever-busier Mac.

Quick and easy access to your data

According to APS's own internal bench testing, this unit's average seek time of 16ms and average transfer rate approaching 1.8MB per second, makes it an ideal solution for many Macs facing a storage shortage.

As an internal drive, the Maxtor LXT-340 is perfect for the Mac you depend on most. The zero footprint external version fits comfortably under your Classic-styled Mac or neatly next to any other Mac model.

Satisfaction guaranteed

Each Maxtor LXT-340 is covered by the manufacturer's two-year warranty, APS's disk-for-disk replacement guarantee and a 30-day, no-questions-asked return policy.

Getting set up and ready to work with an APS drive is a snap thanks to easy-to-follow, illustrated installation instructions. Have a question? APS's award-winning technical support staff is as near as your phone six days a week.

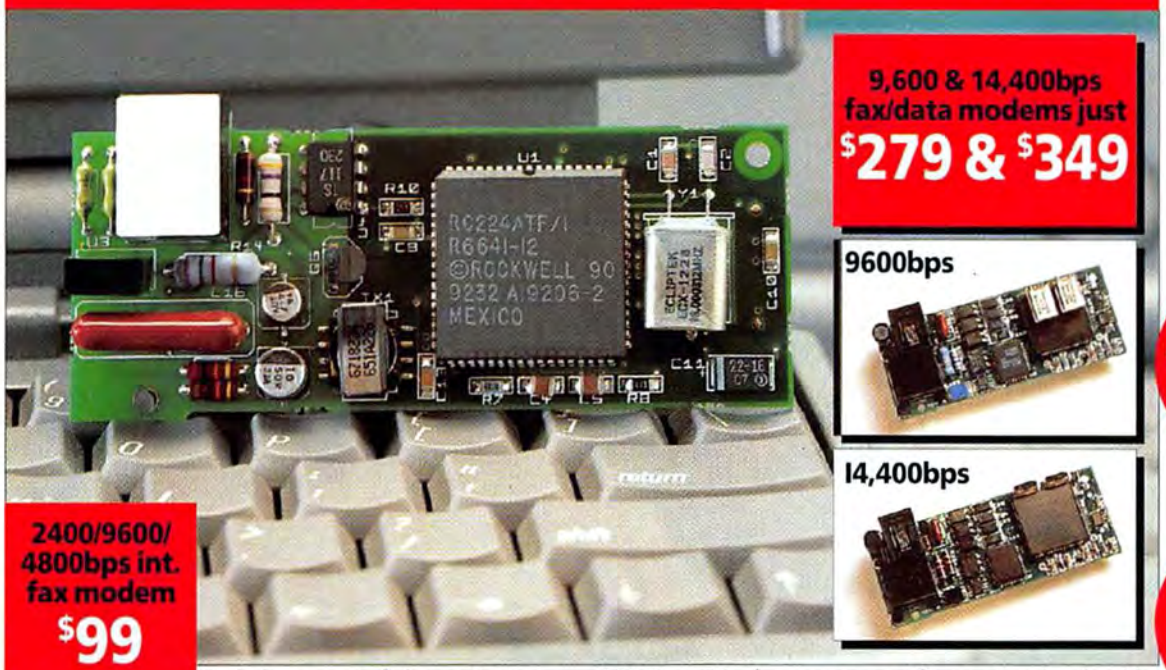
Need this fast?

Put the speed and power of this drive to work for you. Call APS today for delivery as soon as tomorrow.

DiskFit Direct by Dantz Development, now ships on every APS hard disk drive and removeable media drive product . You get an easy to use, back up utility to help you protect those precious files and documents. With DiskFit Direct, there's no longer any excuse not to back up.

APS Technologies

Communicate!
APSModems



9,600 & 14,400bps fax/data modems just $279 & $349

9600bps

14,400bps

2400/9600/ 4800bps int. fax modem $99

Pack the power of electronic communication into your PowerBook with an APSModem, fax/data modems for your Powerbook. For as little as $99 (regularly $129) with your purchase of any other APS PowerBook accessory, outfit your notebook with a 2400 baud Hayes-compatible data modem that sends faxes at up to 9600bps and receives at up to 4800bps. Order one today, fax with it tomorrow.

Have modem, will travel

Your PowerBook will be your most efficient communications tool on the road or anywhere once you've installed an APSModem in your PowerBook. With one of these modems on board, you can send and receive faxes or data from anywhere in the world. Use a hotel fax machine as your remote printer to send yourself a hard copies of documents you've written while traveling.

For each, the right modem

The APSModem series starts with a 2400 baud model, which sends data at 2400bps or faxes at 9600bps (4800bps receive). When you buy any APS Power Book accessory—from a GO•80 drive to a PowerBook screwdriver toolkit—you're eligible to purchase this modem for just $99!

Need more speed and efficiency? Consider the 9600bps or the 14.4kbps models, priced at $279 and $349 respectively.

So sophisticated they wake your PowerBook from sleep to receive a fax, then lull it back into slumber—each of APS's internal PowerBook Modems come complete with easy-to-use fax software that supports background faxing and a special QuickFax desk accessory.

Guaranteed quality

You get our easy-to -follow installation instructions, a comprehensive operation manual and APS's legendary service and toll-free technical support. These premium-brand fax modems carry a one-year manufacturer's warranty and APS's 30-day, no-questions-asked money-back guarantee.

Helpful, knowledgeable sales associates

Toll-free technical support

30-day money-Back guarantee

Disk-for-disk replacement warranty

24-hour BBS with our latest software

30-day money-back guarantee • All drive products carry a 30-day money-back guarantee. Your risk in the transaction is the cost of shipping.
• **Disk-for-disk replacement warranty** • SyQuest, most Quantum , Maxtor and DAT drives are warranted for two years. Maxtor L2, L7 GB and Fujitsu drives are warranted for five years. WREN, Quantum 2.5" drives, TEAC drives, all CD-ROMs ,MOs and SyQuest carts are warranted for one year. Toshiba 830 is warranted for three years.
• **Prices and specifications subject to change without notice.**

• **All hard drives include brackets, cables, cords and LEDs required for operation** with the specified Macintosh. All hard drives come preformatted with Apple's latest stable all-platform System software, at least 9.2 MB of compacted publicly-distributable software, and APS Technologies' ALLIANCE POWER TOOLS SCSI formatter/hard disk partitioner.
• **Toll-free technical support as often or for as long as you need .** Regular hours are 8 am to 8 pm Monday thru Friday, 10 am to 4 pm Saturday, Central Time.

M–F 7AM–9PM CST. SAT 10AM–4PM CST.
Visa/MasterCard, Discover, American Express: No Surcharge.
APS Technologies, 2900 S. 291 Hwy., Independence, MO 64057
International: 1-816 478-8300 FAX: 1-816 478-4596 (24 Hours)
Toll Free UK: 0800-897-545 Australia: 0014-800-125-875

1-800 235-2750

APS TECHNOLOGIES

CIRCLE 146 ON READER SERVICE CARD.

Remember this guy?

We do. Maybe not him personally, but what he provided – full service.

He washed the windows and checked the tires as a matter of course. He knew something about an engine and could help if you had trouble. He took a genuine interest in the quality of his work and in your satisfaction.

That's the kind of service we strive for at Mac's Place. We ask about your needs and your machine because we want you to get the right product. We won't sell you something that won't work on your system. And we won't try to talk you into a product that's more than you need.

We know what works in the real world because we use Macs, too – exclusively. (Ask other dealers what machine they use for their accounting.) And our Mac consultants try each product before we decide to sell it.

Old fashioned? Maybe. But that's how we do business. And we top it off with $3 overnight delivery per order, not per product.

At Mac's Place, full service is not a thing of the past.

Mac'sPlace™

Find out what full service is all about. Give us a call and we'll send you a catalog. It's full of great deals on the products you need and articles that will help you get the most from your Mac.

Call **1-800-367-4222**
(U.S. & Canada) Monday through Friday 6 a.m. to 10 p.m and Sat & Sun 6 a.m. to 6 p.m., Pacific Time.

©1992. Mac's Place, Inc. Mac's Place and the Mac's Place logo are trademarks or registered trademarks of Mac's Place, Inc. All other marks are the property of their respective companies.

CIRCLE 167 ON READER SERVICE CARD.



Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (July '92)

MacProducts Magic 88 ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good documentation and support. Poor SCSI-cable design. Driver software formats cartridges at 84-MB capacity and supports partitioning, password protection, and diagnostics. No cartridge included. $499 direct. MacProducts USA, Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (Jan '92)

MacProducts Magic 45 Removable ⭐⭐⭐⭐

An overall good buy, the Magic 45 is a SyQuest 44-MB removable-cartridge drive that has excellent speed. Documentation is outdated. SyQuest technology offers speed and compatibility with an industry standard. Comes with a cartridge that has a capacity of about 44 MB. $449 direct; cartridge, $69. MacProducts USA, Inc., 608 W. 22nd St., Austin, TX 78705. 800-622-3475 or 512-472-8881. (Feb '91)

MacTel Index 45 Removable ⭐⭐⭐⭐

Although not the fastest SyQuest removable-cartridge drive, this solidly built product has complete hardware features. Excellent software includes BackMatic and Auto-Save II for backup. Drive supports A/UX partitions and comes with one cartridge that has a capacity of about 44 MB. SyQuest technology offers speed and compatibility with an industry standard. $499 direct with one cartridge. MacTel Technology, 3007 N. Lamar Blvd., Austin, TX 78705. 800-950-8411 or 512-451-2600. (Feb '91)

MacTel Index 88R ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good documentation and bundled software. Poor SCSI cable and overall design. SCSI termination is internal. Driver software formats cartridges at 88-MB capacity and supports partitioning, backup, password protection, and diagnostics. Comes with 14 MB of public-domain software. Good support. $899 direct. MacTel Technology, 3007 N. Lamar Blvd., Austin, TX 78705. 800-950-8411 or 512-451-2600. (Jan '92)

MacTown DataStor 88 ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good design and construction. SCSI termination is internal. Includes two AC outlets. Driver software formats cartridges at 88-MB capacity and supports partitioning. $589. MacTown, 1431 S. Cherryvale Rd., Boulder, CO 80303. 800-338-4273 or 303-442-6767. (Jan '92)

MacTown DataStor DS44/25MR ⭐⭐½

This SyQuest removable-cartridge drive has rudimentary documentation and software but a quiet fan. Cartridge has about 44-MB capacity. SyQuest technology offers speed and compatibility with an industry standard. Version DS44/25MR reviewed. Version HM44/25R shipping. With cartridge, $465. MacTown, 1431 S. Cherryvale Rd., Boulder, CO 80303. 800-338-4273 or 303-442-6767. (Feb '91)

Mass Microsystems DataPak 45 ⭐⭐⭐⭐

This well-built, SyQuest removable-cartridge drive comes with excellent documentation and is bundled with Disk Doubler software. Has two switched AC outlets and internal SCSI termination. $1,199. Mass Microsystems, Inc., 810 W. Maude Ave., Sunnyvale, CA 94086. 800-522-7979 or 408-522-1200. (Feb '91)

Mass Microsystems DataPak 88 ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good documentation and bundled software. Includes two AC outlets. Driver software formats cartridges at 85-MB capacity and supports partitioning and password protection. $1,799. Mass Microsystems, Inc., 810 W. Maude Ave., Sunnyvale, CA 94086. 800-522-7979 or 408-522-1200. (Jan '92)

Mass Microsystems DataPak MO/128 ⭐⭐⭐⭐

This magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs and offers good construction and documentation. Internal mechanism is a Sony SMO-P301. Includes two switched AC outlets. Cartridge capacity after formatting is approximately 119 MB. Bundled with SuperDisk and DiskDoubler. Formatting utility is DataPak MO/128 Formatter. $1,799 with one cartridge. Mass Microsystems, Inc., 810 W. Maude Ave., Sunnyvale, CA 94086. 800-522-7979 or 408-522-1200. (July '92)

Mega Drive Mercury 240 ⭐⭐⭐

Based on a Quantum 240-MB mechanism, this removable hard drive is fast and ruggedly built. Includes portable, completely sealed hard-disk module and a stationary SCSI docking bay. If module is not manually locked in place, it can be accidentally removed from docking bay during operation. Auto-mounts volume on desktop only if included Steadfast driver software is already installed on startup volume. Does not auto-eject hard-disk module when its icon is dragged into Trash. $1,999. Mega Drive Systems, 489 S. Robertson Blvd., Beverly Hills, CA 90211. 310-247-0006. (Nov '92)

MicroNet CPKD-2000 ⭐⭐⭐⭐

The MicroNet CPKD-2000 includes the Archive 4320NT DAT-cassette drive and Retrospect Remote 1.2 network-backup software. Fast performance. Compact case. Requires Macintosh Plus or later and a hard drive. $2,595. MicroNet Technology, Inc., 20 Mason, Irvine, CA 92718. 714-837-6033. (Oct '91)

MicroNet Micro/Optical SB-SMO-1 ⭐⭐⭐⭐

The MicroNet Micro/Optical SB-SMO-1 is a fast erasable optical drive. Can turn off data verification while writing to the disc. Can combine many discs into a single volume. $4,445. MicroNet Technology, Inc., 20 Mason, Irvine, CA 92718. 714-837-6033. (Nov '90)

MicroNet MR-45 ⭐⭐⭐⭐

The MR45 is a good choice among SyQuest removable-cartridge drives. It has excellent documentation, powerful software, and a well-shielded power supply. Both SCSI-ID selection and SCSI termination are external. With cartridge, $795; with Retrospect Remote, $995. MicroNet Technology, Inc., 20 Mason, Irvine, CA 92718. 714-837-6033. (Feb '91)

MicroNet MR-90 ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive has limited bundled software. Good SCSI-cable design. Fuse is internal. Driver software formats cartridges at 84-MB capacity and supports partitioning and password protection. $995. MicroNet Technology, Inc., 20 Mason, Irvine, CA 92718. 714-837-6033. (Jan '92)

Microtech CD600 ⭐⭐⭐⭐

This CD-ROM drive is well built and offers good performance. It has no preamp output, and volume control is limited. SCSI-ID selection is via pushwheel. External SCSI termination. $899. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (June '91)

Microtech OR120 ⭐⭐⭐½

This slow magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs and offers good construction. Internal mechanism, an IBM MD3125A, was scheduled for replacement by faster IBM MD3125B. Cartridge capacity after formatting is approximately 119 MB. Bundled with excellent Norton Utilities and LifeGuard. Formatting utility is OR 120 Formatter. Two-year warranty. Version OR120 reviewed. Version Genesis 120 shipping. $1,899 with one cartridge. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (July '92)

Microtech OR650 ⭐⭐⭐

The Microtech OR650 is an

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

erasable optical drive with slow performance. Good software, Total Recall, allows unattended backups. Includes Norton Utilities for the Macintosh. Version OR650 reviewed. Version Genesis 650 shipping. $2,199. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (Nov '90)

Microtech R50 ⭐⭐⭐⭐

Because it uses Ricoh's new magnetic-disk-cartridge technology, this drive offers a potentially more durable cartridge design than the older, established (and incompatible) SyQuest technology. Good for storing and transporting large files, Ricoh 50-MB cartridges may also offer better dust resistance. Doesn't match SyQuest drives' speed, however. If you want to be an early adopter of this promising new standard, the R50 is a good choice. It comes with a cartridge and excellent utilities and formatting software. $1,299. Microtech International, Inc., 158 Commerce St., East Haven, CT 06512. 800-626-4276 or 203-468-6223. (Feb '91)

Mirror CD-ROM ⭐⭐⭐⭐½

This solidly built CD-ROM drive offers good performance. It has good audio software, but volume control is limited. SCSI-ID selection is via pushwheel. External SCSI termination. No bundled CD-ROMs. AC outlet provided. $697. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (June '91)

Mirror RM42 ⭐⭐⭐⭐

The RM42 is a well-built, SyQuest removable-cartridge drive. It comes with QuicKeys, DiskTop, MockPackage+, and 10 MB of public-domain software. SCSI-ID selection and termination are external. $497. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (Feb '91)

Mirror RM600 Optical ⭐⭐⭐

The Mirror RM600 Optical is an erasable optical drive with slow performance. Software allows manual sector mapping. Auto-eject option at dismount or shutdown. $2,997. Mirror Technologies, Inc., 2644 Patton Rd., Roseville, MN 55113. 800-654-5294 or 612-633-4450. (Nov '90)

NEC Intersect CDR-72 ⭐⭐⭐

This CD-ROM drive is well built and has fast Photoshop performance but slow disc access. SCSI-ID selection is via DIP switch. External SCSI termination. No bundled CD-ROM discs. $799. NEC Technologies, Inc., 1414 Massachusetts Ave., Boxborough, MA 01719. 800-632-4636 or 508-264-8000. (June '91)

NEC Intersect CDR-73M ⭐⭐⭐⭐

By automatically switching to a higher rotational speed when accessing data tracks instead of audio tracks, this CD-ROM drive can offer twice the throughput of the older CDR-73 model. Performance improvement makes running QuickTime movies directly from CD-ROMs practical. Older multimedia discs using different graphics and sound formats may not show any speed boost. Uses awkward DIP-switch arrangement to change SCSI-address number, whose presetting to 0 conflicts with internal hard drive's setting. Has power switch, volume-control dial, and mono and stereo output jacks. External SCSI termination. Version CDR-73M reviewed. Version CDR-74 shipping. $684. NEC Technologies, Inc., 1414 Massachusetts Ave., Boxborough, MA 01719. 800-632-4636 or 508-264-8000. (Sept '92)

Ocean Tidalwave 650 ⭐⭐⭐⭐

The Tidalwave 650 is a fast erasable optical drive. Includes MacTools Deluxe, plus software to find and mount Ocean drives on a SCSI chain. With SCSI cable and one cartridge, $2,695 direct. Ocean Microsystems, Inc., 246 E. Hacienda Ave., Campbell, CA 95008. 800-262-3261 or 408-374-8300. (Nov '90)

Ocean Vista 128 ⭐⭐⭐½

This magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs and offers good documentation. Internal mechanism is a MOST RMD-5100-S. Cartridge capacity after formatting is approximately 119 MB. No bundled software. Includes bare-bones formatting utility, Compass Works. With SCSI cable and one cartridge, $1,499 direct. Ocean Microsystems, Inc., 246 E. Hacienda Ave., Campbell, CA 95008. 800-262-3261 or 408-374-8300. (July '92)

OMI CDP-1B CD-ROM ⭐⭐⭐⭐

This CD-ROM drive is well built and offers fast Photoshop performance. Includes HyperCard audio software. SCSI-ID selection via pushwheel. External SCSI termination. $795. Optical Media International (OMI), 180 Knowles Dr., Los Gatos, CA 95030. (800) 347-2664 or (408) 376-3511. (June '91)

Optical Access International CM 231 ⭐⭐⭐½

This CD-ROM drive is well built and has good audio features. Its nonstandard disc caddy is difficult to load. SCSI-ID selection is done via DIP switch. External SCSI termination. Two-year warranty. $1,049. Optical Access International, 800 W. Cummings Pk., Ste. 2050, Woburn, MA 01801. 800-433-5133 or 617-937-3910. (June '91)

Optima DisKovery 128MO ⭐⭐⭐⭐

This magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs. Internal mechanism is a Sony SMO-P301. Cartridge capacity after formatting is approximately 119 MB. Good documentation. Fuse is internal. No bundled software. DiskMount formatter is good value. $1,495 with one cartridge. Optima Technology, 17526 Von Karman, Irvine, CA 92714. 714-476-0515. (July '92)

Optima DisKovery 88R ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good documentation and SCSI-cable design. Case allows vertical orientation. Fuse is internal. Driver software formats cartridges at 85-MB capacity and supports partitioning, password protection, data recovery, and diagnostics. $695. Optima Technology, 17526 Von Karman, Irvine, CA 92714. 714-476-0515. (Jan '92)

PCPC DATStream ⭐⭐⭐½

The PCPC DATStream includes the Archive 4330 DAT-cassette drive and NetStream 2.04 backup software. Fast and easy to use for stand-alone backup but slow and hard to use for network backup. Confusing manual. Version 2.04 software reviewed. Version 2.1 software shipping. Requires Macintosh Plus or later and a hard drive. $2,995. PCPC (Personal Computer Peripherals Corp.), 4 Daniels Farm Rd., Ste. 326, Trumbull, CT 06611. 800-622-2888. (Oct '91)

Pinnacle Micro REO-1303 ⭐⭐⭐⭐

This portable magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs. Internal mechanism is a Sony SMO-P301. Fuse is internal. Cartridge capacity after formatting is approximately 119 MB. Good documentation. No bundled software. Includes bare-bones formatting utility, REO Formatter. $1,995. Pinnacle Micro, Inc., 19 Technology, Irvine, CA 92718. 800-553-7070 or 714-727-3300. (July '92)

Pinnacle Micro REO-6500 ⭐⭐⭐⭐

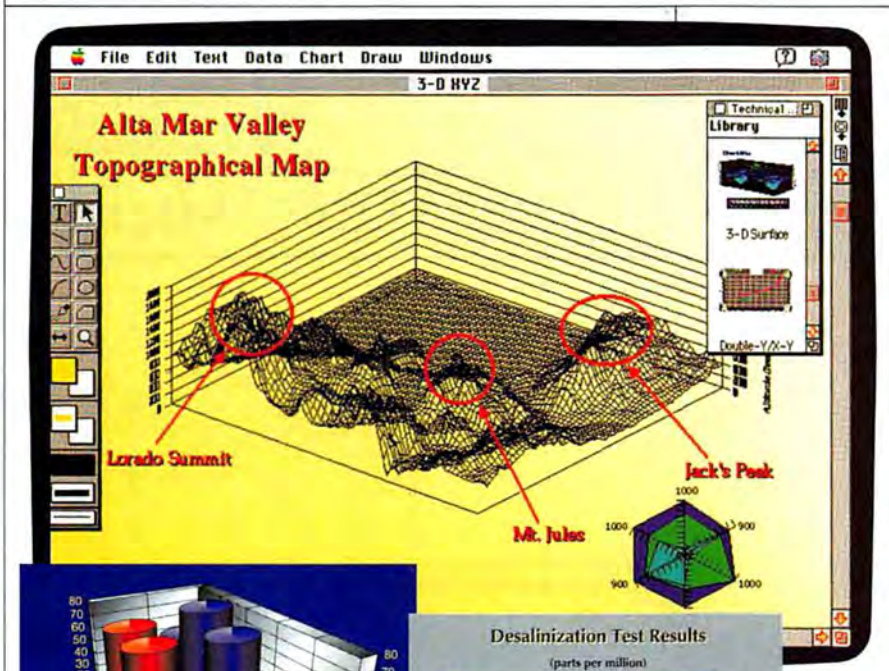
The REO-6500 optical jukebox combines a Sony magneto-optical disc drive with a robotic media changer that can handle ten cartridges containing 650 MB each. Users can mount each cartridge as a separate volume, and volumes can be combined up to 2 gigabytes. All disc-changer operations are automatic and transparent to users. Uses two SCSI-ID numbers in SCSI chain; three jukeboxes can be daisy-chained to the Mac. Excellent Jukebox Admin software simplifies cartridge handling. Version 2.0 reviewed. Requires Mac Plus or later and a hard drive. $9,995; software, cables, power cord, $995; disc, $199. Pinnacle Micro, Inc., 19 Technology, Irvine, CA

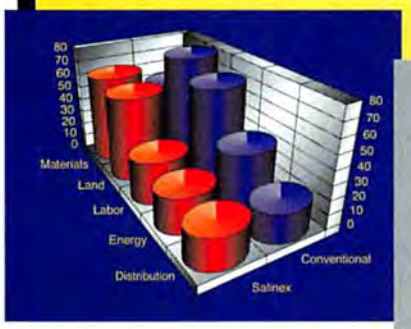
MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

DeltaGraph® Professional for Macintosh

The World's Best Charting, Graphing, and Presentation Program

With Links To Excel 4.0







"I am impressed with the range of things DeltaGraph Pro does. It's the only product on the market that addresses all complex charting needs. DG Pro is one hot product."
—Lori S. Jennings, TRW Electronics Systems

"DG Pro has expanded the range of chart types that I can produce and provides charts that are not available on any other Mac package."
—David Peltz, Mac Engineering and Scientific Report, CADventures

"DeltaGraph Professional does things that Excel, Cricket, and Wingz does, but better and easier. It consists of more useful items such as making a bunch of graphs on one document without having to do a lot of cut and pasting. I use DeltaGraph Professional in place of all other graphic systems."
—John Kingsley, Kingsley Associates

"Any scientist or engineer should have this package for the charting features alone."
—Doug and Denise Green, InfoWorld Magazine

"DeltaGraph Professional has no competition. No package offers the tools, elegant interface, and variety of sophisticated chart types. Also unmatched is its flexibility for formatting, tweaking, and modifying every chart element. If you're looking for the best, look no further than DeltaGraph Pro."
—Becky Waring, MacUser, June 1992

"Feature for feature, DeltaGraph Professional is the best general-purpose business and technical charting program available for the Macintosh."
—Bill Justin, MACWORLD, May 1992

"Best graphic and charting package on the Mac. Adding presentation capabilities gives me more flexibility."
—Roger Gliebe, Lockheed Corporation

"It's a graphics presentation power house."
—Joe Lee, General Electric Information Services

"It is exceptionally easy to use and provides more flexibility than any other package available."
—Dr. Jaime Dananberg, University of Michigan



LIMITED TIME OFFER

FREE

TI-68 scientific calculator included inside each box of DeltaGraph Professional. A $60.00 value absolutely free

1-800-446-6955

★★★★★

MacUser · June, 1992 — MacUser · March 23, 1992

DeltaPoint

2 Harris Court, Suite B-1
Monterey, CA 93940
Fax (408) 648-4047

CIRCLE 42 ON READER SERVICE CARD.

Take a short

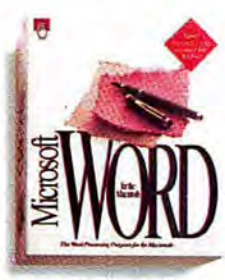


Shortcut to tools. Now it takes the least amount of work to use the functions you need most.

Shortcut to bullets. Your most important points are clearly featured in one speedy step.

Shortcut to envelopes. Address the outside from the inside. Automatically.

Introducing Microsoft® Word 5.1 for the Macintosh®.



The path to easier computing just got shorter, with new Microsoft Word version 5.1.

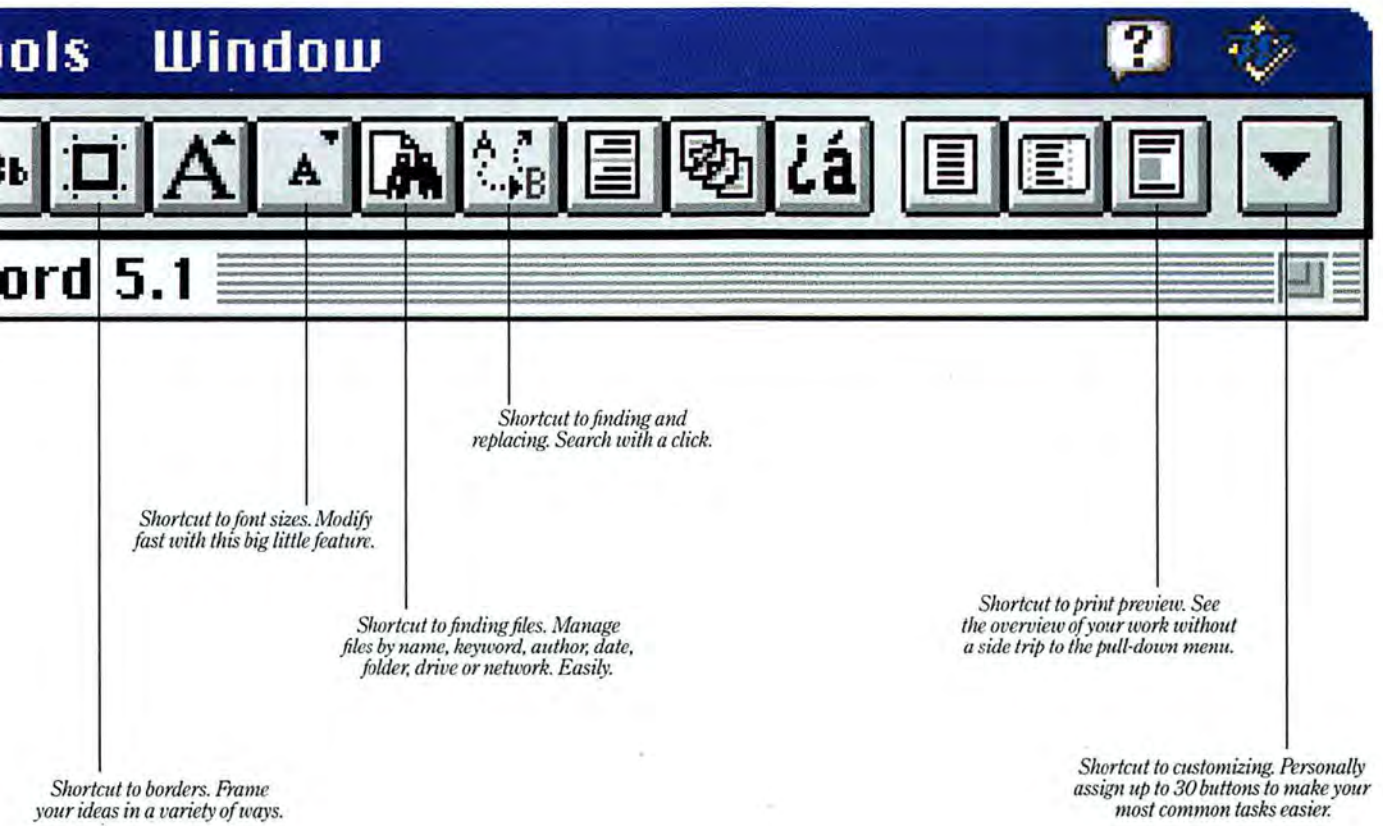
Now you can speed through your work with our intuitive new Toolbar. It puts all of the functions you use most into short and easy reach. With a click.

This powerful Toolbar features one-step bulleting and automatic envelope addressing. Two great new ways to get into the fast lane. Or hit the typecase button to quickly select cases. You can even personalize up to 30 buttons to shorten the trip through repetitive tasks.

We've especially shaved time off your work on long, complex documents.

© 1992 Microsoft Corporation. All rights reserved. Printed in the USA. Nonregistered users of Word for the Mac wishing to upgrade must demonstrate proof of purchase. For more information inside the 50 United States, call (800) 323

cut to work.



Now it's possible for you to easily create charts and tables or insert and edit your own text annotations. Your ideas look great in no time.

Microsoft Word 5.1 comes with special installation features and a new battery indicator for the Mac® PowerBook.™ It also has QuickTime™ support, which allows you to add full-motion video as easily as inserting a simple graphic.

In short, we've made word processing easier than ever before. Thanks to you. Because we got there by listening to your comments and suggestions.

If you'd like to know more about where we've taken Microsoft Word for the Macintosh, just call us at (800) 323-3577, Dept. HY2. And we'll show you the direct route to easier computing.

Microsoft®
Making it easier

nent HY2. Customers in Canada, call (800) 563-9048. Microsoft is a registered trademark of Microsoft Corporation. Macintosh and Mac are registered trademarks and PowerBook and QuickTime are trademarks of Apple Computer, Inc.

92718. 800-553-7070 or 714-727-3300. (Aug '91)

Pinnacle Micro REO-650 ⭐⭐⭐½

The Pinnacle Micro REO-650 is an erasable optical drive with average speed. A/UX option. Voltage selector. Few utilities. $3,995; Pak-Mac adapter kit, $299. Pinnacle Micro, Inc., 19 Technology, Irvine, CA 92718. 800-553-7070 or 714-727-3300. (Nov '90)

PLI DAT Drive ⭐⭐⭐

PLI DAT Drive includes the WangTek 6200HS DAT-cassette drive and Retrospect 1.2 backup software. Well-organized manual. Slow. Requires Macintosh Plus or later and a hard drive. $2,795. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Oct '91)

PLI Infinity 40 Turbo ⭐⭐⭐⭐

The Infinity 40 Turbo is a good choice among SyQuest removable-cartridge drives. Comes with excellent utilities software and formatting plus some great programs for backup, file compression, optimizing, and diagnostics. SCSI termination, however, is via DIP switches. $899 with formatting software only; $999 with bundled utilities and shareware. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Feb '91)

PLI Infinity 88 ⭐⭐⭐⭐

Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good bundled software. SCSI termination is externally switchable. Driver software formats cartridges at 85-MB capacity and supports partitioning, data recovery, disk optimizing, and diagnostics. Comes with 15 MB of public-domain software. Good support. Upgrade for 44-MB SyQuest is available. $1,199. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Jan '92)
657-2211. (Nov '90)

PLI Infinity Optical 3.5" Drive ⭐⭐⭐⭐

This magneto-optical-cartridge drive employs reliable, compact 3.5-inch optical discs. Offers good construction and documentation. Internal mechanism is a Sony SMO-P301. SCSI termination is internal with external switch. Cartridge capacity after formatting is approximately 119 MB. No bundled software. PLI Formatter is good value. $1,999 with one cartridge. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (July '92)

PLI Infinity Optical 5.25" Drive ⭐⭐⭐⭐

The PLI Infinity Optical is a fast erasable optical drive. Uses 5.25-inch cartridges. A/UX option allows 1,024-byte-sector discs. Includes TurboSpool print spooler and a vertical stand. $4,699. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Nov '90)

PLI Jukebox Junior ⭐⭐⭐½

The Jukebox Junior optical jukebox combines a Sony magneto-optical disc drive with a robotic media changer that can handle ten cartridges containing 650 MB each. Users can mount each cartridge as a separate volume, and volumes can be combined up to 4 gigabyte maximum. Uses two SCSI-ID numbers in SCSI chain; three jukeboxes can be daisy-chained to the Mac. Cartridge-handling software is adequate but inconvenient. Optional built-in hard drive boosts performance. Version 1.0 reviewed. Requires Macintosh Plus or later and a hard drive. $9,999; hard drive and caching software, $1,999; ten cartridges, $1,999. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Aug '91)

PLI PL CD-ROM ⭐⭐⭐⭐½

This solidly built CD-ROM drive offers good performance. SCSI-ID selection is via rotary switch. Has an external SCSI-termination switch. In dirty environments, fan may introduce dust onto read/write lens. $999. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (June '91)

PM1.44 Floppy Drive ⭐⭐⭐

The PM1.44 Floppy Drive is used with NeXT computers. Can read Mac 1.4-MB disks. Can read and write DOS- and UNIX-formatted disks, but UNIX disks must be initialized by the PM1.44 drive. Fits under or on top of the NeXT CPU cube. Common-Link software is bundled, which also writes to Mac disks. Requires NeXT computer. $395. Pacific Microelectronics, 201 San Antonio Cir., Ste. C250, Mountain View, CA 94040. 800-628-3475 or 415-948-6200. (Oct '90)

Procom MCD 650 ⭐⭐⭐½

This solidly built CD-ROM drive has good performance, but volume control is limited and there's no preamp output. SCSI-ID selection is via rotary switch. External SCSI termination. Version MCD 650 reviewed. Version MacCD/LX shipping. $595. Procom Technology, Inc., 2181 Dupont Dr., Irvine, CA 92715. 800-800-8600 or 714-852-1000. (June '91)

Procom MDAT1300/M ⭐⭐⭐⭐

The Procom MDAT1300/M includes the WangDAT 1300 DAT-cassette drive and Retrospect Remote backup software. Brief, easy-to-read manual. Requires Mac Plus or later and a hard drive. $2,625. Procom Technology, Inc., 2181 Dupont Dr., Irvine, CA 92715. 800-800-8600 or 714-852-1000. (Oct '91)

Procom MEOD128 ⭐⭐⭐⭐

This magneto-optical-cartridge drive uses reliable, compact 3.5-inch optical discs. Offers good construction and documentation. Internal mechanism is a Sony SMO-P301. Fuse is internal. Cartridge capacity after formatting is approximately 119 MB. No bundled software. Procom formatter is a good value. $1,995 with one cartridge. Procom Technology, Inc., 2181 Dupont Dr., Irvine, CA 92715. 800-800-8600 or 714-852-1000. (July '92)

Procom MEOD650 ⭐⭐⭐

The Procom MEOD650 is a slow erasable optical drive. Desktop icon has SCSI ID. Has 25-pin SCSI connectors. Includes Retrospect Remote backup software and formatter. $3,995 with one cartridge. Procom Technology, Inc., 2181 Dupont Dr., Irvine, CA 92715. 800-800-8600 or 714-852-1000. (Nov '90)

Procom MRD 88 ⭐⭐⭐½

Based on the SyQuest SQ5110 mechanism, this affordable magnetic-cartridge drive offers limited software and minimal support. Fuse is internal. Driver software formats cartridges at 83-MB capacity and supports partitioning and password protection. $899. Procom Technology, Inc., 2181 Dupont Dr., Irvine, CA 92715. 800-800-8600 or 714-852-1000. (Jan '92)

Relax 1.2 Gig Tape Vista ⭐⭐⭐½

The Relax 1.2 Gig Tape Vista includes the fast Archive 4520NT DAT-cassette drive and SoftBackup•II 4.06 backup software, which has limited features. Version 4.06 software reviewed. Requires Mac Plus or later and a hard drive. $1,369 direct. Relax Technology, Inc., 3101 Whipple Rd., Ste. 22, Union City, CA 94587. 510-471-6112. (Oct '91)

Relax Mobile 44 Vista ⭐⭐⭐½

The Mobile 44 Vista is a SyQuest removable-cartridge drive with an auto-switching power supply, quiet fan, and built-in surge protection. Comes with a cartridge. The formatting software is powerful but difficult to use. SCSI-ID selection and SCSI termination are external. Documentation is poorly written. $429. Relax Technology, Inc., 3101 Whipple Rd., Ste. 22, Union City, CA 94587. 510-471-6112. (Feb '91)

Relax Optical 600 Plus ⭐⭐⭐½

The Relax Optical 600 Plus is an erasable optical drive with built-in power control, surge protection, noise filtering, and a compact case. Version 600 Plus reviewed. Version 600 Vista shipping. $1,899 direct. Relax Technology, Inc., 3101 Whipple Rd., Ste. 22, Union City, CA 94587. 510-471-6112. (Nov '90)

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

And here's an upgrade you can't bypass.



New Microsoft® Word 5.1 for the Macintosh®. This new upgrade has such great shortcuts to work, that taking it home should be easier, too.

So for a limited time, as a special reward to all of our registered users of version 5.0, you can upgrade to 5.1 for only $14.95*. And for users of any earlier versions of Microsoft Word, you can upgrade right now for $129*.

For more information about this terrific offer, you can give us a call at (800) 323-3577, Department HY2. And discover for yourself why new Microsoft Word 5.1 won't be easy to pass up.

Microsoft®
Making it easier

*Plus a $5 freight fee and applicable sales tax. Reseller price may vary. Offer good only in the 50 United States. Nonregistered users of Word for the Macintosh wishing to upgrade must demonstrate proof of purchase. Inside the 50 United States, call (800) 323-3577, Dept. HY2. For information only: In Canada call (800) 563-9048. © 1992 Microsoft Corporation. All rights reserved. Printed in the USA. Microsoft is a registered trademark of Microsoft Corporation. Macintosh is a registered trademark of Apple Computer, Inc.

Relax Vista 88R ⧫⧫⧫½
Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive offers good documentation. Limited software bundled. Poor SCSI-cable design. Fuse is internal. Driver software formats cartridges at 83-MB capacity. $799 direct. Relax Technology, Inc., 3101 Whipple Rd., Ste. 22, Union City, CA 94587. 510-471-6112. (Jan '92)

Relax/Pioneer DRM-600 ⧫⧫⧫½
This CD-ROM drive can hold six discs and is well built. Its performance is slow, even when you're not jumping between discs. Good volume control. SCSI-ID selection is via DIP switch. Internal SCSI termination. Version DRM-600 reviewed. Version DRM-600A shipping. $949 direct. Relax Technology, Inc., 3101 Whipple Rd., Ste. 22, Union City, CA 94587. 510-471-6112. (June '91)

Rodime R45 Plus ⧫⧫½
This SyQuest removable-cartridge drive lacks software features, but it offers good performance. Plastic case is relatively flexible. Cartridges have 44-MB capacity. SCSI-ID selection and SCSI termination are external. $729. Rodime Systems, Inc., 7700 W. Camino Real, Boca Raton, FL 33433. 800-227-4144 or 407-391-7333. (Feb '91)

Saturae Academy 240Z/ro ⧫⧫½
Based on a Quantum 240-MB mechanism, this removable hard drive is fast and affordable. Includes portable, completely sealed hard-disk module and a stationary SCSI docking bay. Does not automount. Uses formatting software or utility such as SCSI Probe to mount volume after module insertion in docking bay. Good documentation. $948 direct. Saturae Corp., 148 Richdale Ave., Cambridge, MA 02140. 800-728-8723 or 617-661-8166. (Nov '92)

Sumo RSSM600-B ⧫⧫⧫
The Sumo RSSM600-B is an erasable optical drive. Meager software. Its default format is not ISO. Requires an Option-key sequence to format it as ISO standard. Slow. $2,982. Sumo Systems, 1580 Old Oakland Rd., Ste. C-103, San Jose, CA 95131. 408-453-5744. (Nov '90)

Sumo SS 50 Removable ⧫⧫⧫½
Using Ricoh's new magnetic-disk-cartridge technology, this drive offers a potentially more durable cartridge design than the older, better established (and incompatible) SyQuest technology. Good for storing and transporting large files, Ricoh 50-MB cartridges may also offer better dust resistance. Doesn't match SyQuest drives' speed, however. Good documentation. It supports A/UX partitions and is bundled with Retrospect software. $1,229. Sumo Systems, 1580 Old Oakland Rd., Ste. C-103, San Jose, CA 95131. 408-453-5744. (Feb '91)

Tecmar DATaVault ⧫⧫⧫½
The Tecmar DATaVault includes the WangTek 6130FS DAT-cassette drive and QTBackup software. Sturdy and heavy. Version 2.04 software reviewed. Version 3.0 shipping. Requires Macintosh Plus or later, a hard drive, and Mac interface kit. $4,995; Mac interface kit, $195. Tecmar, Inc., 6225 Cochran Rd., Solon, OH 44139. 800-624-8560 or 216-349-0600. (Oct '91)

Tecmar THS-2200 ⧫⧫⧫⧫
The THS-2200 is a 2.2-gigabyte-capacity backup tape drive built around an Exabyte 8-millimeter tape mechanism. Average transfer rate is 129.21K per second. Requires Macintosh Plus or later, a hard drive, and Mac interface kit. $6,995; Mac interface kit, $195. Tecmar, Inc., 6225 Cochran Rd., Solon, OH 44139. 800-624-8560 or 216-349-0600. (July '90)

Texel DM5020 ⧫⧫⧫
This CD-ROM drive has good volume control and fast Photoshop performance when accessing color images. No preamp output. SCSI-ID selection is via DIP switch. Has external SCSI termination. No bundled CD-ROMs. Version DM5020 reviewed. Version DM5021 shipping. $543. Texel America, Inc., 1080 E. Duane Ave., Ste. C, Sunnyvale, CA 94086. 800-886-3935 or 408-736-1374. (June '91)

Third Wave 45R ⧫⧫⧫½
This SyQuest removable-cartridge drive has an auto-switching power supply, external SCSI-ID selection, and external SCSI termination. The drive is bundled with Fontina utilities, 12 MB of shareware, and HyperDeck. Version 1.5 Disk Manager Mac reviewed. Version 2.4 shipping. $475 direct. Third Wave Computing, Inc., 1826-B Kramer Ln., Austin, TX 78758. 800-284-0486 or 512-832-8282. (Feb '91)

Third Wave 88 SR ⧫⧫⧫½
Based on the SyQuest SQ5110 mechanism, this magnetic-cartridge drive has poor design and construction. Poor SCSI cable. Internal SCSI termination. Driver software formats cartridges at 84-MB capacity and supports partitioning, password protection, and diagnostics. Good support. $799 direct. Third Wave Computing, Inc., 1826-B Kramer Ln., Austin, TX 78758. 800-284-0486 or 512-832-8282. (Jan '92)

Third Wave DATadrive 2.0 GB ⧫⧫⧫
The DATadrive 2.0 GB includes the WangTek 6130HS DAT-cassette drive and Retrospect 1.3 backup software. Slow performance. Requires Macintosh Plus or later and a hard drive. $1,395 direct. Third Wave Computing, Inc., 1826-B Kramer Ln., Austin, TX 78758. 800-284-0486 or 512-832-8282. (Oct '91)

Todd Enterprises TCDR6050 ⧫⧫⧫⧫
This CD-ROM drive offers good overall performance, even when used with Photoshop. No preamp audio output. Internal SCSI-ID selection and external SCSI termination. AC cable permanently attached. $1,010 with cable and software. Todd Enterprises, 224 - 249 67th Ave., Bayside, NY 11364. 800-445-8633 or 718-343-1040. (June '91)

Toshiba XM3201A ⧫⧫⧫
This solidly built CD-ROM drive offers good performance. It has no preamp output and limited volume control. SCSI-ID selection is via DIP switch. External SCSI termination. Version XM3201A reviewed. Version XM3301E shipping. $850. Toshiba America Information Systems, 9740 Irvine Blvd., P.O. Box 19724, Irvine, CA 92713. 800-456-3475 or 714-583-3000. (June '91)

Total Peripherals TP-44R ⧫⧫⧫
The TP-44R is a SyQuest removable-cartridge drive with an auto-switching power supply, external SCSI-ID selection and a noisy fan. Performance is above average, but documentation is rudimentary. $799. Total Peripherals, Inc., 1 Brigham St., Marlboro, MA 01752. (508) 460-0764. (Feb '91)

TTI CTS-4M ⧫⧫⧫
The TTI CTS-4M includes the WangDAT 1300 DAT-cassette drive and Nightshift 1.5 backup software. Heavy. Software has limited features. Version 1.5 software reviewed. Requires Mac Plus or later and a hard drive. $2,690. TTI (Transitional Technology, Inc.), 5401 E. La Palma Ave., Anaheim, CA 92807. 714-693-7707. (Oct '91)

Tulin A-Hive 88R ⧫⧫⧫½
Based on the SyQuest SQ5110 mechanism, this affordable magnetic-cartridge drive is poorly designed. Has minimal documentation, support, and bundled software. Driver software formats cartridges at 84-MB capacity and supports partitioning. Large case. $539. Tulin Technology, 2156H O'Toole Ave., San Jose, CA 95131. 408-432-9057. (Jan '92)

Xyxis XY600RW ⧫⧫⧫
The Xyxis XY600RW is a slow, reliable erasable optical drive. Has dynamic partitioning. $4,000. Xyxis Corp., 14631 Martin Dr., Eden Prairie, MN 55344. 612-949-2388. (Nov '90)

TELECOMMUNICATIONS

Abaton InterFax 24/96 ⧫⧫⧫½
The InterFax 24/96 fax modem is capable of either 2,400-bps data transmission or 9,600-bps facsimile transmission.

MICE RATINGS ⧫ ⧫½ ⧫⧫ ⧫⧫½ ⧫⧫⧫ ⧫⧫⧫½ ⧫⧫⧫⧫ ⧫⧫⧫⧫½ ⧫⧫⧫⧫⧫



(Social Security #566-39-2966)

You'll try almost anything.

You've even thought about claiming the pooch as a dependent. We understand completely. Because from the dawn of taxation, mankind has been striving to keep more of its hard earned money. That's why we developed MacInTax®, America's #1 tax software.

MacInTax is the world's easiest to use and most complete tax preparation software. With our new EasyStep™ system, just gather your tax records and enter the data. MacInTax does the rest.

It performs all the calculations, checks for accuracy and consistency and transfers every number to the proper line on the proper form. All that's left to do is print out your IRS approved tax form (or file electronically). Sign it, and drop it in the mail.

And MacInTax is the closest thing to having a tax advisor right on your desk. It helps you identify every deduction you can claim. It even alerts you to things that could trigger an IRS audit.

If you need help, over 100 tech support people are just a phone call away. So making a mistake is virtually impossible. That's why more than 7 million tax returns were filed with our products last year.



Order your copy of MacInTax now for $59.95.* Call us at 1-800-964-1040 ext. 3122. Or see your software dealer. We'll also send a FREE copy of SimCity*, by MAXIS** (a $49.95 value) when you place your order.

So call now. And get the tax break you deserve without going to the dogs.

MacInTax.
MacInTax by ChipSoft

**Plus $7.00 S&H. For retail purchases attach a copy of sales receipt and enclose $7.00 U.S. for shipping and handling. (Check or money order payable to ChipSoft.) Send to: ChipSoft, SimCity offer, P.O. Box 85709, San Diego, CA 92186-1966. All prices are in U.S. dollars. Dealer prices may vary. ©1992 ChipSoft, Inc. All trademarks are the property of their respective manufacturers. *SimCity, the award-winning city simulator from MAXIS.

Fax mode allows sending as well as receiving. Incorporates automatic data/fax switching, polling support, activity reports, good print times, and good regain-control times. Error correction is MNP Class 4, and data compression is MNP Class 5. Lacks features such as user-definable cover pages, a Preview mode, and scaling. Off-hook times are long, which can cause higher phone charges, but creating a fax is fast. Includes InterShare software. $595. Abaton (Everex Systems), 48431 Milmont Dr., Fremont, CA 94538. 800-628-3837 or 510-498-1111. (May '91) ★ '89 Eddy

Accu-Weather Forecaster ⭐⭐⭐⭐

Accu-Weather Forecaster is a combined communications and meteorological data-analysis program. Gives access to hourly National Weather Service reports. Simple maps and charts let you view weather data graphically. Telecommunications mode is optimized to reduce connect-time costs. Version 1.05 reviewed. Version 2.2 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a 300-, 1,200-, or 2,400-bps Hayes-compatible modem. $49.95; Accu-Weather connect fee, $39.95; educational and commercial connect rates higher. Software Toolworks, 60 Leveroni Ct., Novato, CA 94949. 800-234-3088 or 415-883-3000. (Aug '89)

Applied Engineering DataLink Express ⭐⭐½

This 2,400-bps modem's slow performance is partly due to MNP 5 compression, and the bundled Terminal 1.5 software doesn't help in setting up data compression or error correction. The modem comes with its own hardware-handshaking cable, necessary for data-flow control. Version 1.0 reviewed. Version II v.42bis shipping. Requires Macintosh Plus or later. $271; with send/receive fax, $336. Applied Engineering, 3210 Beltline Rd., Dallas, TX 75234. 800-554-6227 or 214-241-6060. (Jan '91)

CIM (CompuServe Information Manager) ⭐⭐⭐

The CIM interface can help novice telecommunications users get the hang of the popular CIS (CompuServe Information Service). The version tested was excruciatingly slow at text retrieval and file transfer, however. Because tasks must be done on-line, you'll quickly amass some hefty phone and CompuServe bills. CIM offers no automated search/retrieval routines. If you use CompuServe extensively, try Navigator instead. Version 1.03 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, 2 MB of RAM, a hard drive, and a modem. $49.95 (including $25 usage credit) for new CIS members, or $25 (including $25 usage credit) for current CIS members; $3 for Zmac edition. CompuServe Information Service, 5000 Arlington Centre Blvd., Columbus, OH 43220. 800-848-8199 or 614-457-8600. (Mar '91)

CompuServe Navigator ⭐⭐⭐⭐

Navigator is a custom application that provides an interface and telecommunications links for the popular CompuServe Information Service. Designed primarily as an off-line, task-management program to minimize on-line connection charges, Navigator performs complex message-handling and file-transfer tasks quickly. Now that most of the early bugs have been worked out, the program's main drawbacks are its unusual interface and difficult handling of scrolling text. Version 3.04 reviewed. Version 3.11 shipping. Requires Macintosh Plus or later, a hard drive, and a modem. $99.95. CompuServe Information Service, 5000 Arlington Centre Blvd., Columbus, OH 43220. 800-848-8199 or 614-457-8600. (Mar '91)

Computer Friends Lightspeed 2400LE ⭐⭐⭐½

The price/performance of this 2,400-bps modem makes it a good buy. If you buy one, make sure the right cable — the CBL-124 — is included. It's not as fast as modems using V.42bis compression, but the Lightspeed is faster than all the others that use MNP 5 compression. $159. Computer Friends, Inc., 14250 N.W. Science Park Dr., Portland, OR 97229. 800-547-3303 or 503-626-2291. (Jan '91)

Cypress Research FaxPro ⭐⭐⭐

The FaxPro is a networkable fax modem capable of either 2,400-bps data transmission or 9,600-bps facsimile transmission. Fax mode allows both sending and receiving. The FaxPro incorporates activity reports and turns in good times for printing, regain-control, and off-hook. A Preview mode and an Exact Scale option are provided, but there's no graphics-conversion feature and the cover pages are inflexible. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or higher with 2 MB of RAM, System 6.03 or later, and a hard drive. $850. Cypress Research Corp., 240 E. Caribbean Dr., Sunnyvale, CA 94089. 408-752-2700. (May '91)

Digicom ScoutPlus ⭐⭐⭐

This well-engineered V.32bis modem offers average performance. Flow-control cable not included. Poor technical support. Supports Group 3 fax, MNP 5, V.42, and V.42bis standards. Includes Quick Link II software. Five-year warranty. $545. Digicom Systems, Inc., 188 Topaz St., Milpitas, CA 95035. 800-833-8900 or 408-262-1277. (Nov '92)

Dove DoveFax Desktop ⭐⭐⭐⭐

The DoveFax Desktop is an external fax modem capable of either 2,400-bps data transmission or 9,600-bps facsimile transmission. Fax mode allows sending as well as receiving. The compact DoveFax Desktop allows flexible cover pages and provides fast off-hook and print times as well as good regain-control times. At test time it lacked an enveloping option (the ability to send several faxes to different destinations) and directory export/import capability. Version 2.0 reviewed. Version 2.03 shipping. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $299; internal NuBus-card version, $349. Dove Computer Corp., 1200 N. 23rd St., Wilmington, NC 28405. 800-849-3297 or 919-763-7918. (May '91)

Fax Line Manager ⭐⭐⭐⭐⭐

Fax Line Manager (formerly Phone Line Manager) lets you connect a phone, a fax, and a modem to the same phone line. Two- and three-device versions are available. It's intelligent enough to route incoming calls correctly. Outside callers can be given codes to override it, which saves time. No software needed. Two-device version, $169; three-device version, $199. Technology Concepts (Prometheus Products), 9524 S.W. Tualatin Sherwood Rd., Tualatin, OR 97062. 800-477-3473 or 503-692-9600. (Mar '90)

FAXstf ⭐⭐⭐

The FAXstf was an early entrant in the fax-modem race. Its performance is adequate but slower than most fax machines. Using it as a normal modem requires changing plugs. Networking software is also available. Version 1.03 reviewed. Version 2.2 shipping. Requires Macintosh Plus or later and a hard drive. $89 direct; with networking software, $249. STF Technologies, Inc., P.O. Box 81, Concordia, MO 64020. 816-463-7972. (Feb '89)

Global Village TelePort A300 ⭐⭐⭐⭐½

This small 2,400-bps modem has an excellent price and solid performance. It connects to an ADB port rather than a serial port. The software puts information on connection status, transmission speed, and the number of characters transmitted per second onto the desktop menu bar. The manual is exemplary. It's not the fastest modem available, but it's as good as any other 2,400-bps modem. Requires Macintosh SE or later. $225. Global Village Communications, Inc., 685 E. Middlefield Rd., Bldg. B, Mountain View, CA 94043. 800-736-4821 or 415-390-8200. (Jan '91) ★ '90 Eddy

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

The Best Things In Life Are FREE!



MacWAREHOUSE® *carries more than 2,000 Macintosh products, including all the latest releases and new versions. We pride ourselves on getting new products first! Just fill in the information requested at the right and mail the coupon. We will start your* **FREE** *one-year subscription to the* **MacWAREHOUSE®** *catalog with the next issue.*

FREE MacWAREHOUSE® CATALOG SUBSCRIPTION

1720 Oak Street • P.O. Box 3031 • Lakewood, NJ 08701

Please enter my free, one-year subscription to the MacWAREHOUSE catalog.

Name

Address

Apt.

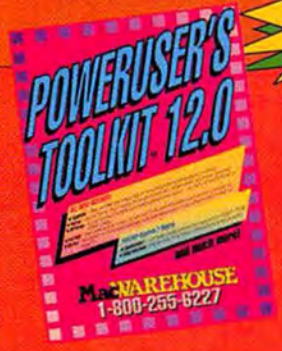
City

State Zip

(Expect to receive your first issue within 4-6 weeks.)

MacWAREHOUSE®





FREE!*

Power User's Tool Kit™

Check every month for the latest version of Steven Bobker's Power User's Tool Kit™. Free when you order from MacWarehouse.*

**$1.50 Shipping and Handling charges applies.*

MacWAREHOUSE®

1-800-255-6227

OVERNIGHT DELIVERY ONLY $3.00!

CIRCLE 156 ON READER SERVICE CARD.

© Copyright 1992. MicroWarehouse, Inc. MacWarehouse® is a division of MicroWarehouse, Inc. MacWarehouse® and MicroWarehouse® are registered service marks of MicroWarehouse, Inc. Item availability and price subject to change without notice.

Hayes ULTRA 144 ⭐⭐⭐
This V.32bis modem has poor performance, excellent technical support, and good documentation. CCL file for AppleTalk Remote Access available on Hayes BBS. Supports Bell 103, MNP 5, V.42, and V.42bis standards. Software included is for PC-compatibles only. Two-year warranty. $999. Hayes Microcomputer Products, Inc., 5835 Peachtree Corners E., Norcross, GA 30092. 404-840-9200. (Nov '92)

Hayes V-series Smartmodem 9600 ⭐⭐⭐⭐½
The V-series Smartmodem 9600 is one of the fastest modems available for the Mac. To achieve high speeds, you need a special cable and software that supports the V.42 and X.25 protocols. Requires Macintosh 512Ke or later, Mac-to-modem cable, and communications software. $999; with cable, Smartcom II for the Mac, and Hayes-Connect software, $1,049. Hayes Microcomputer Products, Inc., 5835 Peachtree Corners E., Norcross, GA 30092. 404-840-9200. (Jan '89)

HyperDialer ⭐⭐⭐½
HyperDialer provides an interface between a phone and your Mac so you can dial a number by using a Rolodex-type program such as SideKick, Focal Point, or QuickDEX. Connects between the Mac's sound port and a telephone handset. Works with any Mac except SE/30, Classic, LC, or IIsi. $49.95; adapter for Mac II series, $5. DataDesk International (Prometheus Products), 9524 S.W. Tualatin Sherwood Rd., Tualatin, OR 97062. 800-477-3473 or 503-692-9600. (Sept '88)

Image TWINCOM 14.4/DF ⭐⭐⭐
This V.32bis modem performs well. Flow-control cable not included. Poor technical support. Supports Bell 103, Group 3 fax, V.17 fax, MNP 5, V.42, and V.42bis standards. Includes Quick Link II software. Two-year warranty. Version 2.02 software reviewed. $549. Image Communications, 6 Caesar Place, Moonachie, NJ 07074. 800-666-2496 or 201-935-8880. (Nov '92)

Intel 2400EX MNP-Macintosh ⭐⭐⭐
This 2,400-bps modem delivers average performance. Its software requires manual setup for data compression and error correction. Before buying, double-check to see that it includes the right cable for hardware flow control. The modem has a five-year warranty. $369. Intel Corp., 5200 N.E. Elam Young Pkwy., Hillsboro, OR 97124. 800-538-3373 or 503-696-8080. (Jan '91)

Logicode QuickTel Xeba M14.4XV Fax ⭐⭐⭐½
This V.32bis modem offers good performance and technical support. Poorly organized documentation. Supports Bell 103, Group 3 fax, MNP 5, V.42, and V.42bis standards. Includes FAXstf software. Five-year warranty. Version 2.09 software reviewed. $589. Logicode Technology, Inc., 1817 De Havilland Dr., Newbury Park, CA 91320. 805-499-4443. (Nov '92)

MicroPhone II ⭐⭐⭐⭐
This powerful telecommunications program has a wide range of user options and customizable features. Supports virtually all protocols and modems. Many features can be thoroughly automated with scripts. Excellent terminal-emulation capabilities. Program complexity and a busy interface can be drawbacks for novices, but its new graphical front end to remote computer services helps considerably. Good for mixed Mac/PC environments. Excellent documentation. Version 4.0 reviewed. Version 4.02 shipping. Requires Macintosh Plus or later, System 6.03 or later, a hard drive, and a modem. $195. Software Ventures Corp., 2907 Claremont Ave., Berkeley, CA 94705. 510-644-3232. (Oct '92) ★ '86 Eddy

NetModem/E ⭐⭐⭐⭐½
This sleek, compact 14,400-bps modem provides shared-modem functions to Macs and PCs on an Ethernet network. Uses AppleTalk protocols for Macintoshes and IPX protocols for Novell NetWare-based PCs. Interface options include thinnet, thicknet, AAUI, and 10BASE-T. Supports V.32bis and V.42bis protocols. Doesn't require a dedicated Mac as a communications server. Requires Ethernet network. $1,669. Shiva Corp., One Cambridge Center, Cambridge, MA 02142. 800-458-3550 or 617-252-6300. (Sept '92)

Orchid OrchidFAX ⭐⭐⭐
The OrchidFAX is a fax modem capable of either 2,400-bps data transmission or 9,600-bps facsimile transmission. Fax mode allows sending as well as receiving. The OrchidFAX can send Mac files at 9,600 bps to other OrchidFAX modems or to an AppleFax, and it has fast regain-control times, along with LQ fonts and a two-year warranty. However, these capabilities aren't enough to compensate for the lack of features in the software provided (a customized version of the venerable BackFAX from Solutions). Performance isn't good over impaired phone lines, and printing is slow. $599. Orchid Technology, 45365 Northport Loop W., Fremont, CA 94538. 800-767-2443 or 510-683-0300. (May '91)

PhonePro ⭐⭐⭐
This programmable voice-mail system integrates sound files well with the Mac environment and E-mail networks. Includes software, a headset, and a special modem that also supports standard 2,400-bps data mode. The modem connects to the Mac's serial port and digitizes sound received over phone lines. Can also connect to an analog PBX, key system, or an ISDN NuBus card. Can't send faxes and doesn't yet support time-scheduled events. Version 1.02 reviewed. Requires System 7 or later, 4 MB of available RAM, and a fast, large-capacity hard drive. $950. Cypress Research Corp., 240 E. Caribbean Dr., Sunnyvale, CA 94089. 408-752-2700. (Dec '92)

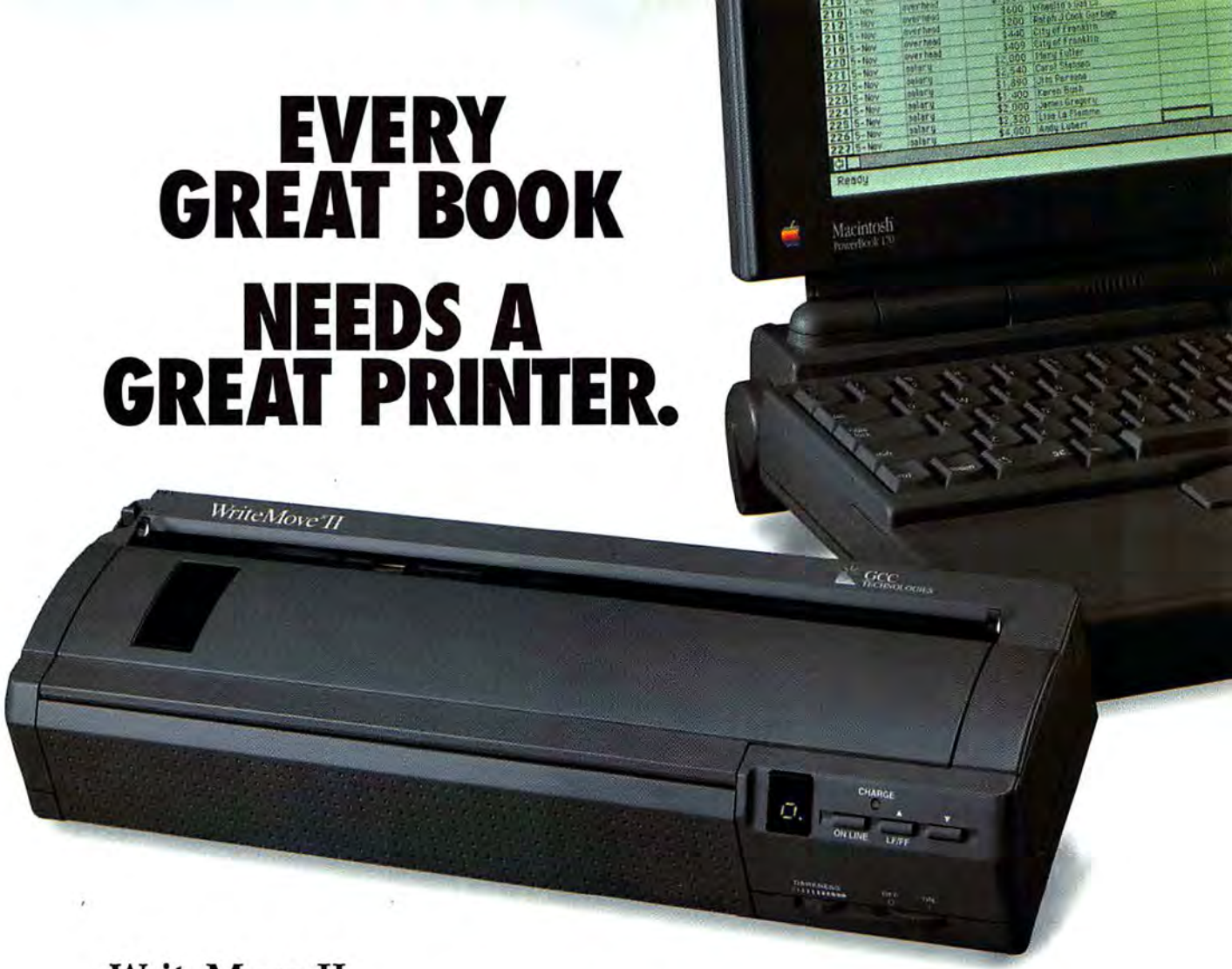
PowerPort/Gold ⭐⭐⭐⭐⭐
This internal send/receive fax modem for PowerBooks is reliable, doesn't require external hardware, and is well suited for use with AppleTalk Remote Access. Supports 14.4-Kbps data transfer using the V.32bis standard. Supports V.42 and MNP Class 4 error correction as well as V.42bis and MNP Class 5 data compression. Uses V.29 Group 3 fax protocol at 9,600 bps for maximum compatibility worldwide. Includes control-panel software to set preferences such as modem-speaker volume and ability to receive faxes. In conjunction with a "Wake Up on Modem Ring" feature, it lets you use a PowerBook as an unattended fax receiver. Includes handy Fax Center DA to automate, schedule, and address faxes. Requires PowerBook 140 or higher. $795. Global Village Communications, Inc., 685 E. Middlefield Rd., Bldg. B, Mountain View, CA 94043. 800-736-4821 or 415-390-8200. (Nov '92)

PowerPort/Silver ⭐⭐⭐⭐⭐
This internal send/receive fax modem for PowerBooks is reliable, doesn't require external hardware, and is well suited for use with AppleTalk Remote Access. Supports 9,600-bps data transfer using the V.32 standard. Supports V.42 and MNP Class 4 error correction as well as V.42bis and MNP Class 5 data compression. Uses V.29 Group 3 fax protocol at 9,600 bps for maximum compatibility worldwide. Includes control-panel software to set preferences such as modem-speaker volume and ability to receive faxes. In conjunction with a "Wake Up on Modem Ring" feature, it lets you use a PowerBook as an unattended fax receiver. Includes handy Fax Center DA to automate, schedule, and address faxes. Requires PowerBook 140 or higher. $595. Global Village Communications, Inc., 685 E. Middlefield Rd., Bldg. B, Mountain View, CA 94043. 800-736-4821 or 415-390-8200. (Nov '92)

Practical Peripherals PM14400FXSA ⭐⭐⭐⭐
This moderately priced

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

EVERY GREAT BOOK NEEDS A GREAT PRINTER.



WriteMove II.
The Portable Executive Printer for the PowerBook.

The Macintosh® PowerBook™ is unquestionably a great book. And now it has the great printer it deserves: the new WriteMove® II from GCC – simply the best portable printer you can buy for your PowerBook. At just 2.5 pounds, the battery powered WriteMove II fits easily in a briefcase. So you can print crisp, 360 x 360 dpi laser-quality output anywhere – in the air, on the road, or in a hotel room. You can negotiate a contract over dinner, print it out, and sign it over dessert. Print on plain paper, envelopes, or even transparencies. The WriteMove II comes with ATM,™ 21 fonts, background printing and On-Screen Page Preview. Plus, there's a one-year trouble-free warranty, and toll-free support. All for just $599. Because every great book deserves a great printer.

Call **800-942-3321,** for the name of your nearest GCC dealer, or **800-422-7777, ext. 114** to order direct. In Canada, call **800-263-1405.**

GCC TECHNOLOGIES
Peripherals With Vision™

© 1992 GCC Technologies, Inc., 617-275-5800. All listed trademarks are trademarks or registered trademarks of their respective manufacturers. GCC dealers are independent businesses and as such may offer different prices, policies, and service arrangements.

299012

CIRCLE 164 ON READER SERVICE CARD.

V.32bis modem performs well on impaired lines. Excellent display clearly indicates transmission status. Supports Bell 103, Group 3 fax, MNP 5, V.42, and V.42bis standards. Includes Quick Link II software. Lifetime warranty. Version 1.01 software reviewed. $579. Practical Peripherals, Inc., 375 Conejo Ridge Ave., Thousand Oaks, CA 91361. 800-442-4774 or 805-497-4774. (Nov '92)

Prometheus MaxFax ↕↕½

The MaxFax is a fax modem capable of either 2,400-bps data transmission or 9,600-bps facsimile transmission. Fax mode allows sending as well as receiving. The inexpensive MaxFax incorporates unique gray-scale capability and is bundled with good telecommunications software. This product had the longest times for regain-control, off-hook, and printing when tested against comparable units. Cover-page options are limited, and enveloping capability for different fax destinations isn't available. $449. Prometheus Products, Inc., 9524 S.W. Tualatin Sherwood Rd., Tualatin, OR 97062. 800-477-3473 or 503-692-9600. (May '91)

Prometheus ProModem 2400M Plus ↕↕↕↕

Although this modem has only average performance, its operation and bundled software are hassle-free. Software (MacKNOWLEDGE 2.0) installation is straightforward and lets you easily set the modem for error correction and slow-but-reliable MNP 5 data compression. $299. Prometheus Products, Inc., 9524 S.W. Tualatin Sherwood Rd., Tualatin, OR 97062. 800-477-3473 or 503-692-9600. (Jan '91)

PSI Integration COMstation Five ↕↕↕½

This well-engineered V.32bis modem offers good performance and superior documentation. Supports Bell 103, Group 3 fax, V.17 fax, MNP 5, V.42, and V.42bis standards. Includes COMstation FAX software and CCL file for AppleTalk Remote Access. Five-year warranty. Version 2.2 software reviewed. $799. PSI Integration, 851 E. Hamilton Ave., Ste. 200, Campbell, CA 95008. 800-622-1722 or 408-559-8544. (Nov '92)

Racal-Datacom RMD 3222 ↕↕

This V.32bis modem has poor performance and technical support. Good LCD display indicates transmission status. Supports Bell 103, MNP 5, V.42, and V.42bis standards. Doesn't include software. Complex documentation. Two-year warranty. $1,145. Racal-Datacom, 1601 N. Harrison Pkwy., Sunrise, FL 33323. 800-722-2555 or 305-846-1601. (Nov '92)

Remote/WakeUp ↕↕↕↕½

Remote/WakeUp is a slick hardware/software combination that lets you turn an ADB-capable Mac on from any modem and that also shuts down the Mac after a specified period of inactivity. Uses a special modem cable that plugs into the modem serial port and the Mac's ADB port. AutoShutDown is an INIT. Version 1.0 reviewed. Version 1.01 shipping. Requires Macintosh II series or higher. $49.95. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Aug '90)

Smartcom II ↕↕↕↕↕

Smartcom II balances power and ease of use. It's capable of unattended operation and has a powerful command language. It has the fastest screen updating available, which can work at 9,600 bps. The large-screen buffer can easily be archived. Version 3.0 reviewed. Version 3.2 shipping. Requires Macintosh 512K or later. $149. Hayes Microcomputer Products, Inc., 5835 Peachtree Corners E., Norcross, GA 30092. 404-840-9200. (Jan '89) ★ '85 Eddy

Supra FAXModem V.32bis ↕↕↕↕

This moderately priced, compact V.32bis modem performs well on impaired lines. Excellent display clearly indicates transmission status. CCL file for AppleTalk Remote Access available on Supra BBS. Supports Bell 103, Group 3 fax, V.17 fax, MNP 5, V.42, and V.42bis standards. Includes FAXstf software and MicroPhone (from Software Ventures). Five-year warranty. Version 2.2 software reviewed. $399 direct. Supra Corp., 7101 Supra Drive S.W., Albany, OR 97321. 800-944-8772 or 503-967-2400. (Nov '92)

Tefax RA2110M ↕↕↕

The Tefax RA2110M is a combination regular fax machine/fax modem. Although this sounds like the best of both worlds, this unit lacks some fax-machine features (such as a paper cutter), and the fax-modem software (a custom version of BackFAX) needs improvement. You might do better to buy a fax machine and a separate fax modem. Version RA2110M reviewed. Version RA2125 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $995. Relisys, 320 S. Milpitas Blvd., Milpitas, CA 95035. 408-945-9000. (June '90)

TeleFinder Pro ↕↕↕½

TeleFinder Pro is an innovative telecommunications program with an interface resembling that of the Mac's Finder. Offers some of the features of AppleTalk Remote Access under System 7.0. Connections to a TeleFinder BBS or to other TeleFinder Pro users are easy, with remote volumes appearing as hard-disk volumes within the interface. Has useful macro-scripting and auto-dial features that can work with major on-line services. However, terminal emulation and text-handling capabilities are weak. Version 1.02 reviewed. Requires Macintosh Plus or later, a hard drive, and a modem. $79.95. Spider Island Software, 4790 Irvine Blvd., Ste. 105-347, Irvine, CA 92720. 714-730-5785. (Mar '92)

Teleglobe DA3214 ↕↕½

This well-engineered V.32bis modem has average performance. Poor technical support. Doesn't include software. Front panel handles diagnostic self-testing. Supports MNP 5 (without data compression), V.42, and V.42bis standards. $1,095. Teleglobe, Inc., 40 High St., North Andover, MA 01810. 800-926-3225 or 508-681-0600. (Nov '92)

TelePort/FAX 9600 ↕↕↕½

The TelePort/FAX 9600 is a send-only, miniature fax modem that uses the ADB instead of the modem port. Can transmit Mac documents in the background in Group 3 fax format at 9,600 bps. Also functions as a Hayes-compatible data modem, sending and receiving data at as many as 2,400 bps. Can use MNP Level 5 compression. Software works well with ATM, Type 1 PostScript, and TrueType fonts as well as graphics. Fast and easy to use but lacks Receive mode and other features available with other fax modems. Version 1.05 reviewed. Requires Macintosh SE or later. $295; fax upgrade for TelePort A300 data modem, $60. Global Village Communications, Inc., 685 E. Middlefield Rd., Bldg. B, Mountain View, CA 94043. 800-736-4821 or 415-390-8200. (Aug '91)

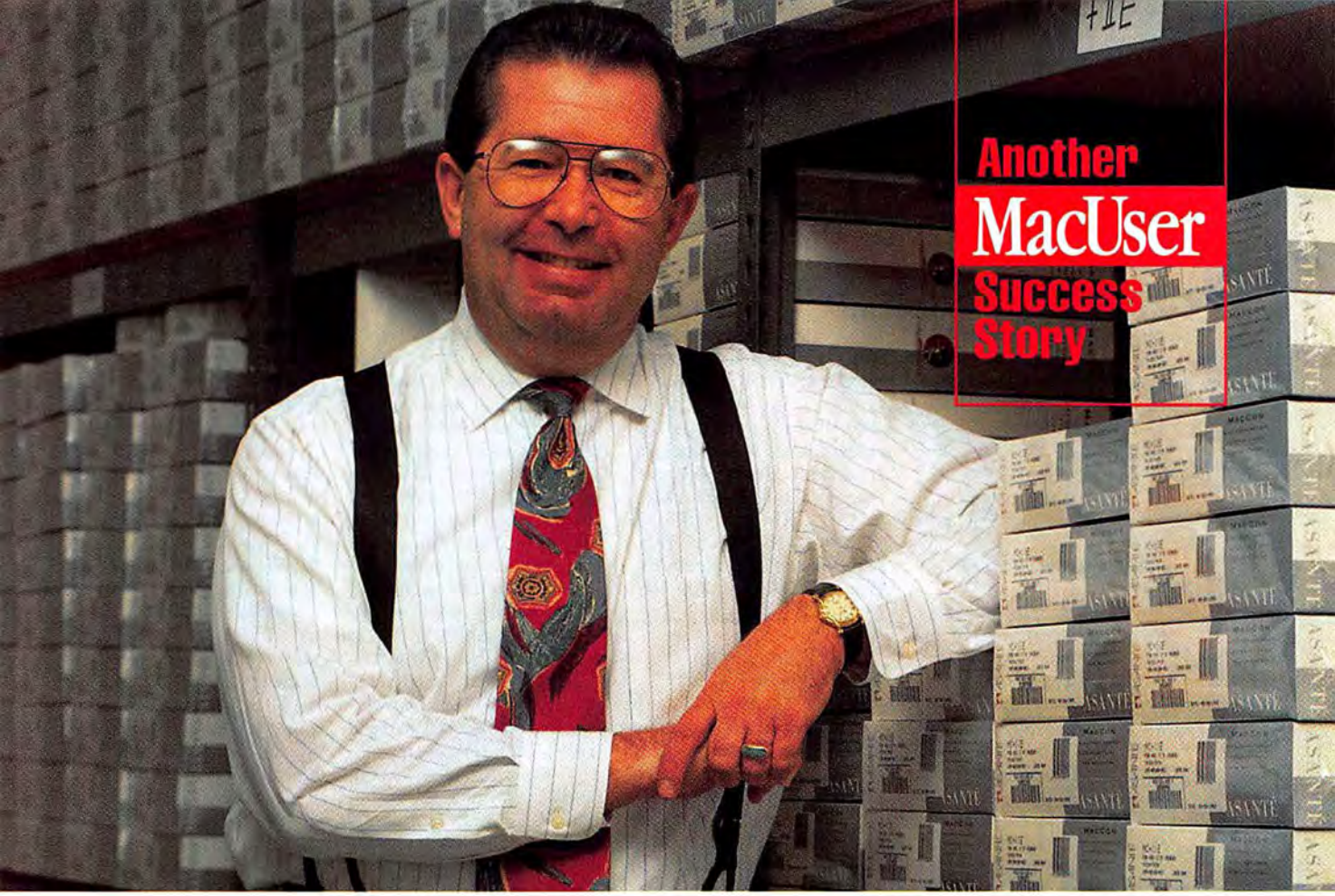
TFLX ↕↕↕↕

TFLX is a sophisticated, programmable, single-line voice-mail system with features that go beyond those of expensive multiline systems. Merges a phone line with the computer's automated handling of voice-response systems. Professional-level package includes custom hardware (that connects the Mac and a phone line) plus easy-to-use software modules for handling multiple voice-mail boxes, fax transmission, and remote control from a separate phone. Version 3.0 reviewed. Version 4.0 shipping. Requires dedicated Mac with 2.5 MB of RAM, System 6.05 or later, and a hard drive. Entry-level system, $495 direct; professional-level system, $1,750. Magnum Software, 21115 Devonshire St., Ste. 337, Chatsworth, CA 91311. 818-701-5051. (Jan '92)

Timbuktu/Remote ↕↕↕½

Timbuktu/Remote is an easy-to-install screen-sharing program that lets one user observe and/or control another user's Mac by modem. The

MICE RATINGS ↕ ↕½ ↕↕ ↕↕½ ↕↕↕ ↕↕↕½ ↕↕↕↕ ↕↕↕↕½ ↕↕↕↕↕



Mr. Ron Volkmar, Vice President, Sales & Marketing, Asanté Technologies, Inc.

ASANTÉ

Asanté gets results ASAP with MacUser.

"Asanté builds networking products to industry standards, commanding between 40% and 50% of the Macintosh market through two-tier distribution.

"We need people who are in the process of enhancing their networks. Because our products are technically oriented, we get our best results in MacUser. MacUser readers decide which Mac products their company will buy.

"In the past two years we've increased our sales from hundreds of units to tens of thousands of units. And MacUser has played a tremendous role in that.

"When you advertise a product, do it in a place where people look for information to help them make buying decisions. The advertising works in MacUser because the magazine works.

"MacUser is an indispensable mechanism for marketing to the Macintosh market. It not only reaches our audience— it has the impact to get our audience to do something. You can advertise and create impressions, but we get more than impressions from advertising in MacUser. We get business.

"Results. Orders. That's what this is about."

MacUser
MEANS BUSINESS

Mac can be a guest and a host simultaneously. Guests can connect to multiple hosts. Handles file transfer. Provides modem connections only, not network connections. Version 1.5 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later, System 6.05 or later, Hayes-compatible modem, and 2 MB of RAM for 24-bit color support. $195; Twin-Pack, $295. Farallon Computing, Inc., 2000 Powell St., Ste. 600, Emeryville, CA 94608. 510-596-9000. (Dec '90)

UDS Motorola V.3229 ⭐⭐⭐½

This V.32bis modem offers exceptional performance and reliability under all conditions. Doesn't include software or flow-control cable. Poor technical support. Supports Bell 103, MNP 5, V.42, and V.42bis standards. Two-year warranty. $1,145. UDS Motorola, 5000 Bradford Dr., Huntsville, AL 35805. 800-451-2369 or 205-430-8000. (Nov '92)

VersaTerm-PRO ⭐⭐⭐⭐½

VersaTerm-PRO is the first telecommunications package that uses the Apple Communications Toolbox's add-on modules. Performance is excellent. Includes a serial module and supports Xmodem, Ymodem, and Kermit transfers. Doesn't have an extensive command or scripting language. Version 3.0 reviewed. Version 3.6 shipping. Requires Macintosh Plus or later, System 6.05 or later, and modem or network connection. $295. Synergy Software, 2457 Perkiomen Ave., Reading, PA 19606. 800-876-8376 or 215-779-0522. (Sept '90)

White Knight ⭐⭐⭐⭐½

White Knight is the new name for Red Ryder (1987 Eddy winner). Although this completely rewritten telecommunications program is now more powerful, the interface has taken a step backward. The manual is new and much improved. Software extensions called RCMDs (similar to HyperCard XCMDs) are now supported. Version 11.02 reviewed. Version 11.14 shipping. Requires Macintosh Plus or later and a modem. $139. FreeSoft Co., 105 McKinley Rd., Beaver Falls, PA 15010. 412-846-2700. (May '90) ★ '87 Eddy

Zoom FaxModem V.32bis ⭐⭐⭐

This V.32bis modem performs well. Poor technical support. Supports Bell 103, Group 3 fax, V.17 fax, MNP 5, V.42, and V.42bis standards. Includes FAXstf and Quick Link II software. Seven-year warranty. Version 2.2 (FAXstf) and 1.2 (Quick Link) reviewed. $449. Zoom Telephonics, Inc., 207 South St., Boston, MA 02111. 800-666-6191 or 617-423-1072. (Nov '92)

Zoom Zoom/Modem V.42bis ⭐⭐⭐⭐½

The Zoom/Modem is a reasonably priced 2,400-bps modem with excellent performance. It uses V.42bis compression, which reduces transfer times. Transmission rate came close to 9,600 bps in some of our tests. The bundled cable supports data-flow control. Requires Macintosh Plus or later and a hard drive. $169; cable, $12. Zoom Telephonics, Inc., 207 South St., Boston, MA 02111. 800-666-6191 or 617-423-1072. (Jan '91)

ZTerm ⭐⭐⭐⭐

ZTerm is a good, cheap telecommunications program. Rich in features. Interface is intuitive. Xmodem, Ymodem, and Zmodem transfers are possible. Has simple macro ability, capture buffer, keyboard buffering, and dial setups. Excellent performance. Easy to use if you have some telecommunications experience. Version 0.85 reviewed. Version 0.9 shipping. Requires Macintosh Plus or later, System 4.1 or later, a modem, and cables. Shareware; downloaded, $30; on-disk, $40. D. P. Alverson Software, 5635 Cross Creek Ct., Mason, OH 45040. (Sept '90)

ZyXEL USA U1496E ⭐⭐⭐

This V.32bis modem performs well. Supports Bell 103, Group 3 fax, V.17 fax, MNP 5, V.42, and V.42bis standards. Includes FAXstf software. Five-year warranty. Version 2.12 software reviewed. $469. ZyXEL USA, 4920 E. La Palma Ave., Anaheim, CA 92807. 800-255-4101 or 714-693-0808. (Nov '92)

UTILITIES

After Dark ⭐⭐⭐⭐½

After Dark is the excellent screen saver that introduced the concept of display modules. Allows easy control of module speed, sound level, and delay before screen saver activates. Can be set to stay awake during any CPU activity except MIDI throughput. Some modules do not work in black-and-white mode. 31 color modules provided include the popular Fish! aquarium, Flying Toasters, Rainstorm, and the psychedelic Satori. Others are available from on-line services and BBS libraries. Add-on package, More After Dark, contains 25 extra modules, including the innovative Lunatic Fringe space game. Version 2.0u reviewed. Requires Macintosh Plus or later; sound requires System 6.03 or later. $49.95; More After Dark, $39.95; both bundled, $69.95. Berkeley Systems, Inc., 2095 Rose St., Berkeley, CA 94709. 510-540-5535. (Oct '91)

AutoSave II ⭐⭐⭐⭐

AutoSave II provides insurance against system crashes. It saves your work automatically at intervals from 1 to 99 minutes. Compatible with many applications but not recommended for use with databases. Version 1.01 reviewed. Version 2.0 shipping. Requires System 6.03 or later. $49.95. Magic Software, Inc., 2239 Franklin St., Bellevue, NE 68005. 800-342-6243 or 402-291-0670. (Dec '89)

Blesser ⭐⭐⭐½

Blesser allows you to switch between various System Folder configurations on your hard disk, without conflicts during startup. Prevents access to the Set Startup defaults for MultiFinder when restarting a switched-on system. Version 1.0 reviewed. Version 1.1 shipping. Freeware (Dave McGary); available from on-line services such as ZiffNet/Mac. (Oct '90)

ClickChange ⭐⭐⭐⭐½

ClickChange is a control panel that customizes your Mac's interface by modifying various features such as window borders, title bars, text, menu background, sounds, and dialog boxes. Comes with a library of more than 40 cursors and 30 excellent sounds. Extremely easy to use. Version 1.03 reviewed. Version 1.052 shipping. Requires Macintosh Plus or later and System 6.04 or later. $89.95. Dubl-Click Software, Inc., 22521 Styles St., Woodland Hills, CA 91367. 800-775-2068 or 818-888-2068. (Mar '91)

ClickPaste ⭐⭐⭐½

ClickPaste puts the functionality of an ordered Scrapbook at the tip of your cursor. Most useful if you frequently cut and paste to and from your Scrapbook. Version 1.0 reviewed. Version 2.1 shipping. Requires Mac Plus or later and System 6.03 or later. $99.95. Mainstay, 5311-B Derry Ave., Agoura Hills, CA 91301. 818-991-6540. (Sept '89)

Clipboard Magician ⭐⭐⭐

Clipboard Magician is a DA that accesses the Clipboard in a Scrapbook-like window. Its "magic wand" helps you manipulate data. Powerful, with steep learning curve. Version 0.61 shipping. Freeware (Ed Lai); available from on-line services such as ZiffNet/Mac. (Oct '90)

Color Bits ⭐⭐⭐⭐

Color Bits is a good icon-drawing utility. Although not the ultimate icon-manufacturing machine, it lets you quickly draw a new icon or revise an existing one. Doesn't require ResEdit. Version 1.0 reviewed. Shareware (Stick Software, Ben Haller), $10; available from on-line services such as ZiffNet/Mac. (Oct '90)

Comment ⭐⭐⭐⭐

Comment is an electronic version of Post-it notes. This mini word processor lets you attach notes to a spreadsheet cell, to words in a text document, or to a window on the desktop. Version 2.0 reviewed. Version 2.03 shipping. Requires Macintosh Plus or later and System 5.1 or later. $99.95. Deneba Software, 7400 S.W.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

East Coast • 800-945-1MAC • 813-886-9534 International • 813-888-9535 Fax

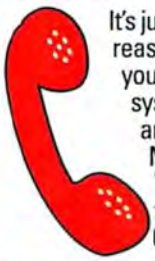
Mac and MORE INC.

Your Mail Order SuperStore™

Mon - Friday	Saturday*	Sunday*	Eastern and Mountain
9:00 - 9:00	9:00 - 5:00	12:00 - 5:00	*East Coast Only

800-945-1MAC East Coast
5426 Beaumont Cte. Blvd., Suite 300 • Tampa, Florida 33634
800-846-4MAC West Coast
730 Walnut, Suite 105 • Boulder, CO 80301
800-945-TECH Tech Support

Yes, Canada's Mail Order SuperStore is back!



It's just one more reason to purchase all your Macintosh systems, peripherals and software from Mac and MORE. We now have a toll-free line for all Canadian sales.

800-846-4MAC Canada
360 Bloor St., Suite 901 • Toronto, Ontario M4W3M3

We carry the full line of Macintosh CPUs and every peripheral to go with them! We do custom configurations!

Getting a custom configuration from Mac and MORE can be easy; just pick up the phone and we'll help you build your customized system!

Double Your Disk Capacity!



ETC DataPress

The ETC DataPress is the first "smart" peripherals SCSI data compression interface gned to work external of the Macintosh. The DataPress features hardware data compression and allows seven additional SCSI devices to be added to your Macintosh. The DataPress won't interfere with virtual memory and can be added to the ETC DataPort Family of removable cartridge drives. On average, the ETC DataPress doubles the capacity of your drive. It can compress some files as high as 15-to-1. If you need lots of disk space, adding a DataPress to your Mac system is less expensive than adding another hard disk!

60 day return policy

ETC DataBeam TCP Thermal Printer



ETC Peripherals' DataBeam TCP Color Printer is a fast and extremely powerful color graphics printer at an extremely affordable price.



ETC PowerGlide 105 Extended Keyboard

Features:
- *105-key extended keyboard layout with full cursor control; 15 function keys; & numeric keypad.*
- *Foreign Language keyboards are also available.*

31 day return policy

Call Now for Details...

Mac and MORE INC.

Consulting Services
813-886-9534
813-888-9535 fax

- systems consulting
- out-of-warranty repair
- equipment trade-ins

ETC SyQuest Removable Drives



ETC 45R Drive* $399
ETC 88R Drive* $499
MacUser 4 mouse winner!
ETC 45R/88R Drive* $599
ETC Dual 45R Drive* $779
ETC Dual 88R Drive* $779

FEATURING SyQuest REMOVABLE TECHNOLOGY

*Don't be mislead by other advertised prices, all of our units include one cartridge per mechanism

ETC DataFlow Interface Cards



The ETC DataFlow family of Ethernet Interface Cards for the Mac are designed to meet your networking needs. Each card provides accurate, high-speed data transfer with 64K of on-board RAM. Plug them in and go!

ETC DataFlow II thick & thin	$140.00	ETC DataFlow II si/SE combo3	$199.00
ETC DataFlow II thick & T	$140.00	ETC DataFlow II LC thin & T	$199.00
ETC DataFlow II combo3	$199.00		

Quantum

	Internal	External
42 Mb	$199.00	$279.00
85 Mb	$299.00	$369.00
105 Mb	$349.00	$419.00
127 Mb	$349.00	$419.00
170 Mb	$409.00	$469.00
240 Mb	$669.00	$739.00
425 Mb	$999.00	$1069.00

Maxtor®

	Internal	External
213 Mb	CALL	CALL
340 Mb	CALL	CALL
760 Mb	CALL	CALL
1.2 Gb	CALL	CALL
1.7 Gb	CALL	CALL

FUJITSU

	Internal	External
425 Mb	$965.00	$1025.00
520 Mb	$1185.00	$1245.00
778 Mb	$1249.00	$1349.00
1.2 Gb	$1785.00	$1885.00
1.7 Gb	$2685.00	$2985.00

HEWLETT PACKARD

	Internal	External
402 Mb	$1199.00	$1299.00
633 Mb	$1409.00	$1509.00
1.0 Gb 3.5"	$2199.00	$2299.00
1.0 Gb 5.25"	$1989.00	$2089.00
1.6 Gb	$2439.00	$2539.00
2.0 Gb	$3599.00	$3699.00

Seagate

	Internal	External
330 Mb	$1129.00	$1229.00
337 Mb Runner	$1249.00	$1349.00
613 Mb	$1349.00	$1449.00
676 Mb	$1285.00	$1485.00
676 Mb WREN	$1549.00	$1649.00
1.2 Gb	$1749.00	$1849.00
1.7 Gb	$2169.00	$2269.00

TOSHIBA

	Internal	External
877 Mb	$1349.00	$1449.00
1.2 Gb	$1599.00	$1699.00

Terms and Conditions: Payment: Mac and MORE accepts Visa, MasterCard, Discover, CODs and Purchase Orders. We will ship CODs with pre-authorized checks. Corporate and School Purchase Orders are Net 15 for orders over $1000 only, and are subject to credit approval. Warranties: All warranties on Macintosh or Apple brand products sold by Mac and More will be honored by Mac and More or its authorized agents only. Mac and More does not guarantee compatibility. Like all other Mail-Order resellers, Mac and More is not an authorized Apple reseller. All other manufacturers warranties are honored by Mac and More and the original manufacturer. Returns: All orders returned or refused will be charged a minimum 15% restocking fee. Call for an RTS before returning. Returns must be in original packing with software seals unbroken. Shipping: For advertised items totaling over $2500 we will ship to destinations in the continental US at no charge. Some large items may not be included in this offer. Ask for details when ordering. Terms, Conditions, and Prices are subject to change without notice or obligation. All products sold by Mac and More are new. We do not sell used equipment. © 1992 Mac and MORE, Inc. All rights reserved. All brand names or product names mentioned are trademarks or registered trademarks of their respective holders. 10/23/92

West Coast • 800-846-4MAC • 303-447-2732 International • 303-447-8051 Fax

CIRCLE 41 ON READER SERVICE CARD.

87th Ave., Miami, FL 33173. 305-596-5644. (Dec '88)

Crash Barrier ⭐⭐⭐⭐½

Crash Barrier is a control panel that lets you recover from a variety of system crashes without always having to restart. Also minimizes data loss when restarts are necessary. Works for about half the crashes you're likely to encounter. Replaces the Mac's generic, usually uninformative bomb dialog box with a dialog box that identifies the problem and, if possible, offers various crash-recovery routes. Has Beginner and Expert modes. Includes some memory-management tools and a sophisticated auto-save option. Version 1.01 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $79.95. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (June '92)

Electric Dvorak ⭐⭐⭐⭐

Electric Dvorak is an excellent Dvorak-keyboard implementation for the Mac. The basic program is an installer that puts the small (3K or so) necessary resources into your System file. Once that's done, you can toggle between the standard key mapping and a Dvorak arrangement with a keyboard-command equivalent. Either keyboard can be set as the default startup arrangement. The documentation, which is all electronic, is brief but excellent. A small chart of the Key Caps layout is provided. Version 1.0 shipping. Works with any Mac. Free on many on-line services. Tom Phoenix, Box 265-ed, Portland, OR 97207. 503-289-1253. (Aug '90)

Help! ⭐⭐⭐⭐

This technical-support software package analyzes Mac systems, highlights potential problems, and suggests possible solutions. Creates detailed diagnostic reports covering one or more hard drives, servers, or floppies. Configuration section of reports describes System Folder contents, applications, SCSI devices, video and other hardware setups, and a wide variety of software details. Doesn't fix problems, but contains a wealth of advice about proven software conflicts or any damaged files. Uses regularly-updated Knowledgebase component to keep track of the always-expanding Mac universe. Version 1.0 reviewed. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $149; yearly Knowledgebase subscription, $75. Teknosys, Inc., 3923 Coconut Palm Dr., Ste. 111, Tampa, FL 33619. 800-873-3494 or 813-620-3494. (Apr '92)

Icon-It! ⭐⭐⭐⭐½

Icon-It! lets you create icons to use as alternatives to menu commands. You can use its 100 icon templates or create your own. Version 2.0 reviewed. Version 2.2 shipping. Requires Macintosh Plus or later. $129. Olduvai Corp., 7520 Red Rd., Ste. A, South Miami, FL 33143. 800-822-0772 or 305-665-4665. (Feb '88)

Intermission ⭐⭐⭐½

Intermission is an After Dark-like screen saver. Includes such great modules as a disco-dancing pig and dueling hand mixers, complete with sound effects. Along with reliable monitor-burnout prevention, provides totally nonproductive fun on your Mac. Version 2.0u reviewed. Requires Macintosh Plus or later; sound requires System 6.03 or later. $49.95. ICOM Simulations, Inc., 648 S. Wheeling Rd., Wheeling, IL 60090. 800-877-4266 or 708-520-4440. (Dec '92)

Kiwi POWER WINDOWS ⭐⭐⭐⭐

Kiwi POWER WINDOWS efficiently manages the placement and size of document windows for multiple applications under System 7. Uses special menu in Finder to create and launch Work Sets, user-defined clusters of applications and files to be opened simultaneously. Overrides applications that normally employ a default window location for all documents when opened. Provides useful Window Selection menu that lists all document windows for all open applications. Planned upgrade will fix minor bugs and add Work Set submenus to the Apple menu. Version 1.0 reviewed. Version 1.52 shipping. Requires System 7.0 or later. $79.95. Kiwi Software, Inc., 6546 Pardall Rd., Santa Barbara, CA 93117. 805-685-4031. (May '92)

LifeGuard ⭐⭐⭐½

LifeGuard is an INIT that acts like an electronic alarm clock, letting you know when a user-defined length of time has elapsed. You control the frequency of breaks as well as the interval allowed before it's time to resume work. Audible sounds or flashing on-screen signals serve as warnings, and a "snooze" function can override the alarm. Some basic information on exercise and ergonomics is also provided. Version 1.0 reviewed. Version 1.02 shipping. Requires Mac Plus or later and System 6.04 or later. $59.95. Visionary Software, Inc., P.O. Box 69447, Portland, OR 97201. 800-877-1832 or 503-246-6200. (Feb '91)

MacEKG ⭐⭐⭐½

Aimed at power users and computer-repair specialists, MacEKG is a system extension that loads into RAM at startup. Administers a complete suite of diagnostic tests and compares current system performance with a log of previous test results. Includes a control panel to customize test procedures. Also includes Restarter, which repeatedly reboots the Mac and accumulates diagnostic information. Planned upgrade will include Periscope, which graphs performance data and identifies specific problems. Version 1.0 reviewed. Version 2.05 shipping. $150. MicroMAT Computer Systems, 7075 Redwood Blvd., Novato, CA 94945. 415-898-6227. (Nov '91)

MasterJuggler ⭐⭐⭐⭐

MasterJuggler is an excellent resource-management utility. Loaded with features, including constant access to hundreds of fonts, DAs, Fkeys, and sounds. Can link applications and then launch them with one command. Interface is sometimes confusing. Also available as part of ALSoft Power Utilities. Version 1.57 reviewed. Requires Macintosh Plus or later with System 6.03 or later. $49. ALSoft, Inc., P.O. Box 927, Spring, TX 77383. 713-353-4090. (July '92)

Maxima ⭐⭐⭐⭐½

Maxima breaks the 8-MB limit on your Mac SE/30 or Mac II. Lets your applications use up to 14 MB of virtual hard-drive memory. Can also create a lightning-fast RAM disk. Elegant design is flawless. No RAM disk automatic write-through or volume-size partitioning features. Version 2.0 reviewed. Version 2.03 shipping. Requires SE/30 or Mac II, 8 MB of RAM, and a hard drive. $69. Connectix Corp., 2655 Campus Dr., San Mateo, CA 94403. 800-950-5880 or 415-571-5100. (Sept '90)

MicroRX SE1 ⭐⭐⭐⭐

MicroRX SE1 is a HyperCard stack that diagnoses your SE's problems. The details are meant for qualified service techs, but anyone using it can gain better knowledge of what's inside the SE. Well done and easy to use. Version 1.01 shipping. Requires HyperCard 1.2.1 or later. $99. MicroMat Computer Systems, 7075 Redwood Blvd., Novato, CA 94945. 415-898-6227. (July '90)

MockPackage Plus Utilities ⭐⭐⭐⭐½

MockPackage Plus Utilities is a set of extremely powerful DAs. Includes a text editor, text printer (supports LaserWriter), charter, terminal, EZmenus, and several other useful tools. Version 1.2 reviewed. Version 4.4 shipping. Requires Macintosh Plus or later and System 4.2 or later; hard drive recommended. $49.95. CE Software, Inc., 1801 Industrial Cir., P.O. Box 65580, West Des Moines, IA 50265. 800-523-7638 or 515-224-1995. (Mar '87)

MugShot ⭐⭐⭐⭐

MugShot is a simple program that analyzes and informs you about your Mac's hardware and operating system. In addition to hardware data, MugShot lists all installed DAs, INITs, cdevs, and rdevs. This data can be vital if your Mac has software conflicts or problems. Version 1.1 reviewed.

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

50MHz

More Speed. Better Value.

Logica



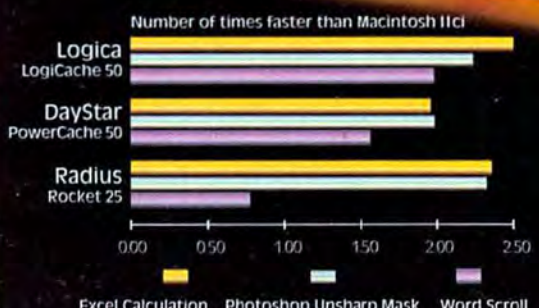
The LogiCache 50MHz '030 Accelerator.

You can't buy a faster, more powerful accelerator for the money. Benchmark tests show that the LogiCache Accelerator out-performs DayStar's PowerCache 50MHz by up to 30% and is virtually identical in real world performance to the Radius Rocket. In some cases, LogiCache beats the Rocket by over 150%! At a retail price of only $1199 with 50MHz FPU, you can't get a better deal. LogiCache also supports twelve different Macs– the II, IIx, IIcx, IIci, IIsi, IIvx/vi, SE/30, LC, LC II, and the new Performa 400 and 600. As with all Logica products, you'll get a 30 day money back guarantee, 5 year warranty, and toll-free tech support. For additional product information or the name of your Logica dealer, call **1 800/880-0988.** Dealer inquiries invited.

MacWorld Lab tests show that 50 MHz 68030 accelerators perform as well as 25 MHz 68040 accelerators, and often cost $1000 to $1500 less.

— June 1992 MacWorld

Logica Research
8760 Research Blvd. Ste 313
Austin, TX 78758
512/836-2168
FAX 512/832-1533



	LogiCache	PowerCache	Rocket 25
Retail Price	$1199 w/FPU	$1599 w/FPU	$1999 (Plus memory)
Speed	50MHz, 68030	50MHz, 68030	25MHz, 68040
Cache	64K, 0 wait states	32K, 1 wait state	——
100% compatible	Yes	Yes	No
CPUs supported	PDS*	PDS*	NuBus Macs only

*Some CPUs require PDS adapters

© 1992 Logica Research, Inc. LogiCache is a trademark belonging to Logica Research, Inc. All other trademarks or tradenames mentioned belong to their respective owners.

CIRCLE 16 ON READER SERVICE CARD.

Version 1.33 shipping. Free from on-line services or $5 from author. Mi Concepts, P.O. Box 8822, Kentwood, MI 49508. Written inquiries only. (Sept '89)

NanoDISK ⭐⭐⭐

NanoDISK is a utility that breaks the 8-MB limit on an SE/30 or Mac II. Provides a functional RAM disk with powerful write-through protection. Version 1.1 reviewed. Requires SE/30 or Mac II. $89; bundled with the 16-MB upgrade, $1,195. Technology Works, Inc. (TechWorks), 4030 Braker Lane W., Ste. 350, Austin, TX 78759. 800-926-3148 or 512-794-8533. (Sept '90)

Now Utilities ⭐⭐⭐⭐⭐

Now Utilities is a superb collection of system-enhancement tools: StartUp Manager (controls extensions, control panels, and Chooser documents); Super Boomerang (adds navigation features to Open and Save dialog boxes and to the Apple menu); Profiler (hardware/software analysis); NowMenus (hierarchical submenus); WYSIWYG Menus (typeface menus actually formatted with your available type fonts); MultiMaster (desktop and menu-bar management); DeskPicture (custom desktop background); AlarmsClock; NowSave (automatically saves documents at regular intervals); and ScreenLocker (a moderately secure password system). Version 3.0 reviewed. Version 4.0 shipping. Requires System 7.0 or later. $149; ten-pack, $1,199. Now Software, Inc., 319 S.W. Washington St., 11th floor, Portland, OR 97204. 800-237-3611 or 503-274-2800. (Jan '92) ★ '91 Eddy

Personality ⭐⭐⭐

Personality is a control panel that lets you change the look and feel of your Mac's interface. You can modify scroll bars, menus and their backgrounds, window borders, title bars, text, and so on. Extremely easy to use, Personality is unique, because it can change the menu font and create 3-D menus. Provides only eight cursors and doesn't include any sounds. Version 1.0.1 reviewed. Requires Macintosh Plus or later and System 6.02 or later. $59.95. Baseline Publishing, Inc., 1770 Moriah Woods Blvd., Ste. 14, Memphis, TN 38117. 800-926-9677 or 901-682-9676. (Mar '91)

Pyro! ⭐⭐⭐⭐½

Pyro! is a screen saver with 12 user-selectable entertaining modules. Good use of color. Handles background tasks well. Can automatically switch to simpler modules when the background load is heavy. Version 4.0 reviewed. Version 4.1 shipping. Requires Macintosh Plus or later. $39.95. Fifth Generation Systems, 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (July '90)

QuicKeys ⭐⭐⭐⭐

QuicKeys lets you make full use of your Apple extended keyboard. Assign any command (menu choices, DAs, and the like) or series of text blocks and/or commands to any key or key combination. Enormously powerful. This new version has added the capability to run macros that trigger sequences of tasks, but QuicKeys 2 still can't handle conditional macros. Some applications, INITs, or control panels may have incompatibility problems. Version 2.0.1 reviewed. Version 2.12 shipping. Requires Macintosh Plus or later, System 6.04 or later, and hard drive. $149. CE Software, Inc., 1801 Industrial Cir., P.O. Box 65580, West Des Moines, IA 50265. 800-523-7638 or 515-224-1995. (May '91) ★ '87 Eddy

QuickTools ⭐⭐⭐⭐

QuickTools is a well programmed set of eight simple utilities. Each operates as a System 7-compatible control panel. PowerStrip offers a NeXT-like, customizable file-launching palette. The handy Dialog Power! modifies dialog-box activation from a keyboard. Sunset is a modular screen saver that resembles Pyro!. Snipper is a well implemented screen-capture/print utility. Barricade is a moderately secure password system. Instant Menus lets you reposition the menu bar on large monitors. Work Saver can set many applications to auto-save work at user-defined regular intervals. Functionality activates some function keys on an Extended Keyboard. QuickToolbox assigns more RAM to the Mac's system heap. Version 1.01 reviewed. Requires Macintosh Plus or later with System 6.03 or later and a hard drive. $79.95. Advanced Software, Inc., 1095 E. Duane Ave., Ste. 103, Sunnyvale, CA 94086. 800-346-5392 or 408-733-0745. (Feb '92)

Screen Gems ⭐⭐⭐⭐

Screen Gems is a package of five color utilities for the Mac II. Color Desk puts art onto your desktop, Dimmer dims the screen when the Mac is inactive, and Switch-a-Roo lets you switch between any two color modes instantly. Globe is a neat demo, and TN-3 lets you customize the Finder's Color menu. Version 1.0 reviewed. Requires Macintosh II series with 2 MB of RAM, System 4.2 or later, and a color monitor. $79. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (Sept '89)

Speedometer ⭐⭐⭐⭐

Speedometer gives you information on how a particular INIT or set of startup documents is affecting your Mac's performance. Easy to use and fairly comprehensive. Wide range of tests and instructions. Charted results let you compare your system's performance with that of another machine. Version 1.0 reviewed. Version 3.11 shipping. Requires System 6.05 or later. Shareware, $30; available from on-line services such as ZiffNet/Mac. Scott Berfield, 26043 Gushue St., Hayward, CA 94544. (Oct '90)

Stepping Out II ⭐⭐⭐⭐

Stepping Out II is a software alternative to a large-screen monitor. Lets you create a virtual screen (as large as memory allows) inside the Mac's 9-inch screen. Automatically scrolls to new document position as you type or draw. Version 2.0 reviewed. Version 2.02 shipping. Requires Macintosh Plus or later. $95. Berkeley Systems, Inc., 2095 Rose St., Berkeley, CA 94709. 510-540-5535. (Oct '88)

Suitcase II ⭐⭐⭐⭐½

Suitcase II has excellent resource-management capabilities that let you open 99 font, DA, sound, or Fkey files at a time. Can display any installed font in any style. Fonts can also appear in their proper typefaces on the font menus. Includes Font Harmony for resolving font-ID conflicts, and Font & Sound Valet for font and sound compression. Although not completely intuitive, has convenient two-window interface and menu bar. Sets feature lets you group font/DA suitcases into logical sets for special projects and then deactivate sets when not needed. Documentation and HyperCard tutorial are superb. Version 2.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $79. Fifth Generation Systems, 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (July '92) ★ '87 Eddy

SuperGlue II ⭐⭐⭐⭐⭐

SuperGlue II, an excellent print-to-disk program, offers superior operation along with many nice touches, such as Glue Notes (Post-it-like notes) and One-Timer, an Fkey that makes operation immensely easier. Version 2.1 shipping. Requires Macintosh Plus or later and System 6.03 or later. $89.95. Portfolio Systems, Inc., 10062 Miller Ave., Ste. 201, Cupertino, CA 95014. 800-729-3966 or 408-252-0420. (Nov '89)

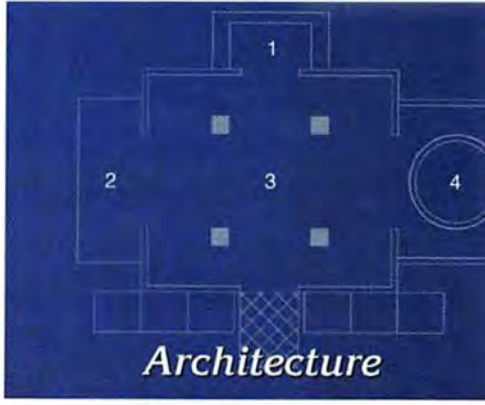
Tempo II Plus ⭐⭐⭐½

Tempo II Plus is a powerful macro program designed for owners of extended keyboards. Especially good for building sequential macros. Unique features include conditional branching and the ability to remember menu selections by name. Tempo II Plus' use of several separate files is potentially confusing, but the bundled installer application helps a lot. Version 2.01 reviewed. Version 2.03 shipping. $169.95 for a single user;

MICE RATINGS ½ 1 1½ 2 2½ 3 3½ 4 4½ 5











NewGen's B Series' TurboPS/1212 B laser printer—1200 dpi +IET.

That's 'B' As In Best

Introducing

NewGen's B Series

Large Format

Laser Printers

• • •

Best Resolution

Best Networking

Best Paper Handling

Best Value

Finally! A large format laser printer that offers affordable PostScript® compatible printing and the best resolution that money can buy—NewGen's B Series family of laser printers.

Best Resolution

The B Series includes NewGen's Image Enhancement Technology (IET)™ which gives you the sharpest graphics and high resolution up to 1200 dpi.

Image Enhancement Technology
Shown below is 12 point Courier enlarged to 250%



Standard 300 dpi B Series 1200 dpi +IET

Best Networking

The B Series with Network ART™ allows Mac, Sun, and PC users to send documents via ethernet to the same printer and automatically switches EtherTalk®, TCP/IP, and Novell® protocols.

Best Paper Handling

The B Series also offers Automatic Paper Tray Sensing which instantly selects and sends the right size paper.

Best Value

Dollar for dollar there are no better large format laser printers than the B Series, currently available in the following models:

- *TurboPS/440 B* 400 dpi +IET*
- *TurboPS/660 B 600 dpi +IET*
- *TurboPS/1212 B 1200 dpi +IET*

For more information about the B Series, or for the dealer nearest you, call us today at:

1-800-756-0556

newgen **NewGen Systems Corporation™**

17580 Newhope Street, Fountain Valley, CA 92708
Telephone 714-641-8600 • Fax 714-641-2800

*Network ART optional. © 1992, NewGen Systems Corporation. All trademarks and registered trademarks are of their respective companies.

END USERS CIRCLE 31 ON READER SERVICE CARD. DEALERS CIRCLE 32 ON READER SERVICE CARD.

$499.95 for five users; $849.95 for 10 users; $1,499.95 for 25 users; $2,499.95 for 50 users. Affinity Microsystems Ltd., 1050 Walnut St., Ste. 425, Boulder, CO 80302. 800-367-6771 or 303-442-4840. (May '91)

Tidy It Up! ★★★★½

Tidy It Up! organizes the System Folder and straightens its contents visually. Attractive, intuitive interface. Customizable categories, including color-coding capabilities. Also available for download on Zmac/CompuServe and other on-line services. Version 1.0 reviewed. Shareware, $15. Guy Fiems, 77 av. Leopold III, Wezembeek-Oppem, Belgium 1970. (May '90)

Virtual ★★★★★

Virtual is a virtual-memory program. Provides up to 15 MB of effective RAM, using hard drive for temporary storage. Excellent performance and superb support. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or SE (with accelerator card), II (with optional 68851 PMMU), SE/30, or later. $199. Connectix Corp., 2655 Campus Dr., San Mateo, CA 94403. 800-950-5880 or 415-571-5100. (Apr '90) ★ '89 Eddy

UTILITIES/FILE & DISK MANAGEMENT

911 Utilities ★★★

911 Utilities undeletes files without first copying and moving the deleted files. Has a good troubleshooting guide. Has poor file-recovery performance and poor performance in panic situations. Difficult interface. The popular Virex virus-protection program is included. Version 1.0 reviewed. Version 1.1 shipping. Requires Mac Plus or later. $149.95. Microcom Utilities Product Group, P.O. Box 51489, Durham, NC 27717. 919-490-1277. (Apr '91)

Apple File Exchange ★★★★

Apple File Exchange (AFE) is one of the utilities that come free with the Mac System Tools disks. Has a simple interface and works with a wide variety of data-transfer methods. Best feature is that it works with current MacLinkPlus Translators. By itself, AFE translators are limited to MacWrite generic text. Free. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Oct '89)

AutoBack ★★★★

AutoBack creates copies of data files on another hard drive (or on selected tape drives) whenever you save or activate a file. Doesn't back up applications and System files. Can be set to back up only selected files, although these options are limited. Performance is good. Version 2.0 reviewed. Version 3.2 shipping. Requires Macintosh Plus or later, a hard drive, and System 6.04 or later. $125; 10-user package, $900; 25-user package, $1,900. TerraNetics, 2773 Westshire Dr., Los Angeles, CA 90068. 213-463-6491. (Aug '90)

AutoDoubler ★★★★½

AutoDoubler provides efficient, automatic, and completely transparent file compression and decompression from storage devices. Fast and reliable. Installs as control panel, with many useful options for extent and frequency of compression. Can exclude designated files, folders, or entire volumes from compression. Size of RAM cache used for normal operation can be adjusted to save memory or to accommodate large files. Extension-management utilities such as INITPicker or Apple's Extensions Manager can make sure that AutoDoubler doesn't inadvertently prevent other extensions or control panels from loading at startup. Version 1.04i reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, 2 MB of RAM, System 6.04 or later, and a hard drive. $89.95. Salient Software, Inc., 124 University Ave., Ste. 300, Palo Alto, CA 94301. 415-321-5375. (July '92)

Backmatic ★★★★★

Backmatic is an INIT that scans your hard disk whenever you shut down and backs up all the changed files. Can back up to floppies, a folder on your hard disk, or a server. Wide-ranging, easy-to-use exclusion abilities. Slow but utterly reliable. Version 1.0 reviewed. Version 2.0 shipping. Requires System 6.03 or later. $99.95; 5-user pack, $295; 10-user pack; $495. Magic Software, Inc., 2239 Franklin St., Bellevue, NE 68005. 800-342-6243 or 402-291-0670. (July '90)

CanOpener ★★★★

CanOpener is a search-and-retrieval utility: It searches files for specified strings. Reads and displays text, MacPaint, PICT, EPS, TIFF, RIFF, and MacDraw II formats. Odd-looking interface is easy to master. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later. $125. Abbott Systems, 62 Mountain Rd., Pleasantville, NY 10570. 800-552-9157 or 914-747-4171. (Feb '90) ★ '89 Eddy

Cat•Back ★★★½

Cat•Back combines disk cataloging and backup. Good cataloger but backing up from one partition to another on the same drive crashed the program. Other performance was OK. Can perform incremental and mirror-image backups. The interface and overall operational procedure need work. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh 512Ke or later. $39.95. Master Manufacturing, Inc., 118 N. Cypress St., La Habra, CA 90631. 310-694-6861. (Aug '90)

Cataloger ★★★

Cataloger is a utility that tracks the contents of floppy disks' contents and saves an index on your hard disk. Provides a comprehensive database for managing floppies. Can also index other removable media, hard drives, or file servers. Finder-like interface lets you check even Get Info comments or the contents of archived StuffIt files. Can print labels for disks. Version 1.1 reviewed. Requires Macintosh Plus or later and a hard drive. $59. Masters Publishing Co., P.O. Box 1940, Ann Arbor, MI 48106. 313-996-8108. (Mar '92)

ColorSqueeze ★★★½

ColorSqueeze is a file-compression program that shrinks photographic-quality color or gray-scale images. Allows three levels of JPEG compression for 24-bit PICT and TIFF images. Highest level of compression reduces file size by about 20:1, with some loss in image quality. Zoom feature lets you inspect details of photos at different compression ratios. Provides basic copy and paste functions. Includes decompression-only utility for unlimited noncommercial distribution. Version 1.0 reviewed. Requires Macintosh II series with 2 MB of RAM, a 24-bit display system, and a hard drive. $179. Eastman Kodak Co., 343 State St., Rochester, NY 14650. 800-242-2424 or 716-724-4000. (Sept '91)

Compact Pro ★★★★½

Written by Bill Goodman, Compact Pro (formerly Compactor) is a shareware application that quickly creates the smallest possible compressed files. It can also create self-extracting archives that open automatically when you double-click on their icons, even when the Compact Pro application isn't available. Self-extracting feature adds only 14K to an archive. Unstuffs StuffIt files up to version 1.51. Many compressed files available from on-line services have been created with Compact Pro. Version 1.21 reviewed. Version 1.33 shipping. Requires Macintosh Plus or later and System 4.2 or later. Shareware, $25 (from on-line services such as ZiffNet/Mac); on disk from Cyclos, $35. Cyclos Software, P.O. Box 31417, San Francisco, CA 94131. 415-821-1448. (Apr '91) ★ '90 Eddy

Complete Undelete ★★★★★

Complete Undelete is a superb file-recovery program. Excellent interface and very fast. Recovers all deleted files and fragments of partially overwritten files. Version 1.1 reviewed. Version 2.01 shipping. Requires Macintosh Plus or later and System 4.2 or later. $79.95. Microcom Utilities Product Group, P.O. Box 51489, Durham, NC 27717.

MICE RATINGS ★ ★½ ★★ ★★½ ★★★ ★★★½ ★★★★ ★★★★½ ★★★★★



Another Great Moment In Connectivity. A New Portable Ethernet Link from Dayna.

An unexpected connection with an Apple gave Sir Isaac Newton one of his greatest ideas. At Dayna, we've always had great ideas about connecting with Apple, and here's one of our latest. DaynaPORT SCSI/Link™— the world's smallest high-speed Ethernet connector for the Macintosh.



The best way to link your PowerBook to Ethernet is with Dayna's new SCSI/Link, priced from $399 to $499 retail.

SCSI/Link's compact case houses two 25-pin SCSI ports as well as connectors for thick, thin and 10BASE-T Ethernet cables. We've also included internal SCSI termination and a SCSI cable for either desktop Macs or PowerBooks. No other SCSI connector gives you this much flexibility in such a small package.

An Ethernet connector this small and this versatile is ideal for PowerBook users on the go. Leave it behind as an Ethernet docking station on your desk or take it with you for portable Ethernet connections on the road. It's also the perfect solution for desktop Macs, such as the Classic and LC, that don't have a card slot available.

Like the rest of our full line of Ethernet adapters, SCSI/Link comes with our Easy Installer for System 6 or System 7 and free diagnostic software. We back all our Ethernet adapters with a lifetime warranty and unlimited free technical support.

So when you're contemplating Ethernet connections for your Mac, think of us first. Because you shouldn't trust a decision of such gravity to anyone but the connectivity experts at Dayna.

Dayna®

We Connect People And The Computers They Use.℠

(801) 531-0600 ext. 351

CIRCLE 134 ON READER SERVICE CARD.

DaynaPORT SCSI/Link is a trademark of Dayna Communications, Inc. All other product names are trademarks of their respective holders. © 1992 Dayna Communications, Inc. 50 South Main, Fifth Floor, Salt Lake City, Utah 84144.

MacLand® Toll-Free Technical Support: 1-800-333-3353

America's Largest Macintosh Hardware Source

Hard Drives



MacLand Hard Drives
Quantum

TWO YEAR WARRANTY!

INTERNAL		EXTERNAL	
42MB	$199	42MB	$279
85MB	$299	85MB	$379
105MB	$339	105MB	$389
127MB	$359	127MB	$429
170MB	$399	170MB	$479
240MB	$599	240MB	$679
425MB	$899	425MB	$999

All MacLand Drives are pre-tested, pre-formatted, and come complete with our own installation and reference manual, DiskMaster Plus™ formatting and utility software, cables and two-year warranty. Internal hard drives also include bracket kits to fit your particular Mac.



Syquest Drives are the recepient of MacUser Magazine's prestigious Editors' Choice Award

SyQuest

All MacLand Removable Hard Drives come with our own installation and reference manual, DiskMaster Plus™ formatting utility software, cables, and a one-year warranty. Cartridge not included.

FWB — *MacLand carries the full line of FWB quality hard disk drives. Please call for our latest pricing.*

Removable Hard Drives

44 Megabyte Hard Drives $399

Cartridges:

100 Pak-ea.	$60
10 Pak-ea.	$62
5 Pak-ea.	$63
Singles	$64



88 Megabyte Hard Drives $449

Cartridges:

100 Pak-ea.	$90
10 Pak-ea.	$92
5 Pak-ea.	$95
Singles	$97



Memory

1MB 80ns	$49
2MB 80ns	$79
4MB 80ns	$149
LC/VC II VRAM upgrade	$95
Quadra VRAM upgrade	$59

Please call for other upgrades

Monitors



Sony Monitors

1320 **$399**

1304 **$599**

Monochrome Monitor Specials

Orion Technologies



Complete Page Display **$329**

Dual Page Display **$699**

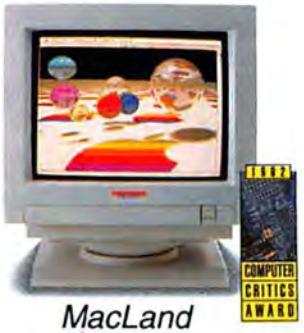
One Year Warranty



Orion MacScan Ultra
$349
One-Year Warranty



Magnavox
$429
Two-Year Warranty



MacLand
$399
Two-Year Warranty

Videos

MacAcademy Video Training Tapes

4th Dimension	Font Management	MacroMind Director	Resolve
Accountant Inc.	Freehand 3.1	Microsoft Works	Superpaint 3.0
Canvas 3.0	Hypercard 2.0	Networking Small	System 7
ClarisWorks	Illustrator 3.2	Pagemaker 4.2	Utilities, CDEV'S & Inits
Design & Layout	Lotus 1-2-3	Paints & Draws	Wingz 1.1
Dollars & Sense	MacDrawPro 1.0	Persuasion 2.0	Word 5.0
Excel 3.0	MacProject II 2.5	Photoshop 2.0	WordPerfect
Excel 4.0	MacWrite II	Powerpoint 2.0	
FileMaker Pro 1.0	Macintosh 6.0	QuarkXPress 3.1	
FileMaker Pro 2.0	Macintosh 7.0	Quicken 3.0	

$39 each

Printers

Dataproducts®



WINNER MacWEEK 1991

★★★★1/2
MacUser Magazine



LZR 1560™
$3,195

- 11" X 17"
- 300 or True 400 Dots-Per-Inch Resolution
- Postscript Level 2
- 15 Pages Per Minute
- RISC-Based Controller
- Dual Bin
- Legal, Letter, Envelopes and Transparancies

LZR™ 960
$1,695

- Smallest Footprint
- Powerfull, RISC- Based Processor
- PostScript Level 2
- "Getting Started" Video Tape
- Legal, Letter, Envelopes and Transparancies
- ***2-Year Warranty***

Qume CrystalPrint Express



Only
~~**$1,999**~~
-200
Rebate!

The Express is backed by a full one-year manufacturer's warranty and MacLand's exclusive 30 day money back guarantee.

- Fast 12 Pages Per Minute
- Legal, Letter, Envelopes and Transparancies
- 3 Megabytes of Ram
- Dual Paper Trays
- 600 x 300 DPI
- 39 Resident Fonts

$1,799 Final Cost
This Month Only!



600 x 600 DPI!

NEW!

LZR 965™
$2,395

- ***8 Megs of Ram!***
- Postscript Level 2
- Powerful RISC-Based Processor
- Legal, Letter, Envelopes and Transparancies
- ***2-Year Warranty***

New Products

SCANNERS

Microtek:	ScanMaker II	**$899**
	ScanMaker IIxe	**$1199**
Relisys:	600 DPI Color Scanner	**$849**
	800 DPI Color Scanner	**$1099**

Limited Time Offer!

From now until Dec. 31,1992 you can purchase the MLI Cordless Supermouse and Symantec's Norton Utilities for ***ONLY $129!***

Introducing the MLi Cordless Supermouse!

Just **$79**

- *Cordless Design*
- *Pin Point Accuracy*
- *400 Dots Per Inch*
- *Uses Less Desktop Space*





Call Us
For Pre-Owned Macintosh Systems!

Product names are trademarks or registered trademarks of their respective holders.

CIRCLE 149 ON READER SERVICE CARD.

AIRBORNE EXPRESS.

ATTENTION: BUSINESSES, GOVERNMENT, EDUCATIONAL INST., MILITARY
• Fax us your P.O. for same day shipment! • P.O.'s accepted on approved account. • All shipments are FOB origin. • Prices do not include freight. • Favorable terms offered to established accounts. • LEASING option available Call for details and pricing!



1-800-333-3353

4685 S. Ash/Tempe, AZ 85282 (602) 820-5802
24 HR FAX: (602) 345-2217

C.O.D.'s payable with Cashier's Check or Money Order.
All shipments made by Airborne Express standard Air which is 1-2 day service. Call for shipping costs. Products purchased in error are subject to 20% restocking fee. All prices subject to change without notice. All products subject to availability.

919-490-1277. (Jan '90)

Copy II Mac ⧫⧫⧫⧫

Copy II Mac is a collection of powerful yet easy-to-use disk utilities, including disk-copying, file-editing, and searching capabilities. Version 7.2 reviewed. Requires Macintosh Plus or later. $39.95. Central Point Software, Inc., 15220 N.W. Greenbrier Pkwy, Ste. 200, Beaverton, OR 97006. 800-445-4208 or 503-690-8088. (Mar '89) ★ '85 Eddy

DIRectory ⧫⧫⧫⧫½

DIRectory is a fast, excellent file-cataloging tool. Easy-to-use Finder-like interface. Good printed reports. Includes actual icons and version numbers and a DA that can find files both on your disks and in DIRectory catalogs. Version 2.0 reviewed. Version 4.01 shipping. $99. Seagull Engineering, Box 909, Lund S-220 09, Sweden. 011-46-46-12-54-64. (Sept '90)

Disk First Aid ⧫⧫⧫

Apple's reliable Disk First Aid is a simple diagnostic tool for floppies and hard drives. It has limited file-recovery abilities compared with blockbuster utility packages such as Norton Utilities for the Macintosh, but you can't complain about the price. Free with every Mac. Apple Computer, Inc., 20525 Mariani Ave., Cupertino, CA 95014. 800-776-2333 or 408-996-1010. (Apr '91)

Disk Ranger ⧫⧫⧫⧫

Disk Ranger is primarily a file-cataloging program. It has superb filtering abilities, plenty of useful sorting options, and good report-printing capability, and it works quickly. Comes with DA that reads catalog files created by the program; also searches effectively for files. Disk Ranger prints decent labels, on ImageWriters only. Can also defragment files of a user-specified size. Disk optimization is adequate. Version 1.0 reviewed. Version 4.76 shipping. Requires Macintosh Plus or later. $59.95. Graham Software Co., 8609 Ingalls Cir., Arvada, CO 80003. 303-422-0757. (July '90)

DiskDoubler ⧫⧫⧫⧫

DiskDoubler consists of an INIT and an application for file compression and expansion. The INIT provides a simple interface, adding a pull-down menu to the Finder and all your applications (in MultiFinder or System 7.0). You rarely need to access the application directly. Quick and efficient for compression. Other utilities, such as StuffIt or Compact Pro, are better for archiving applications. Version 3.0.1 reviewed. Version 3.7 shipping. Requires Macintosh Plus or later, System 6.04 or later, and a hard drive. $79.95. Salient Software, Inc., 124 University Ave., Ste. 300, Palo Alto, CA 94301. 415-321-5375. (Apr '91)

DiskExpress II ⧫⧫⧫⧫½

DiskExpress II is much quicker and better than the original DiskExpress. One of the best hard-drive optimizers (or defragmenters) available, it can run automatically in the background, at a preset time or manually. It's capable of several levels of optimization. When used judiciously, does a perfect job. Version 1.8 reviewed. Version 2.10 shipping. Requires System 6.03 or later. $89.95. ALSoft, Inc., P.O. Box 927, Spring, TX 77383. 713-353-4090. (July '90)

DiskFinder ⧫⧫½

DiskFinder searches disks for files and catalogs disks. Nonstandard, nonintuitive interface. Requires manual updating after every session. Version 1.0 reviewed. Version 1.07 shipping. Requires Macintosh Plus or later. $50. Williams & Macias, Inc., S. 3707 Godfrey Blvd., Spokane, WA 99204. 800-752-4400 or 509-458-6312. (Feb '89)

DiskTop ⧫⧫⧫⧫½

DiskTop is the quintessential Finder-replacement DA. It's easy to use, powerful, and has an excellent interface. Launches applications and performs batch copies and moves. The Find function's multiple options are excellent, and it's very fast. Version 4.0 reviewed. Version 4.02 shipping. Requires Macintosh Plus or later and System 6.04 or later; hard drive recommended. $99.95. CE Software, Inc., 1801 Industrial Cir., P.O. Box 65580, West Des Moines, IA 50265. 800-523-7638 or 515-224-1995. (June '90)

DOS Mounter ⧫⧫⧫⧫

DOS Mounter is an INIT (extension) that lets the Mac desktop mount MS-DOS floppy disks, as well as PC-compatible removable cartridges with higher capacity. Assigns Macintosh Type and Creator codes to MS-DOS files, which lets specified Mac applications open them automatically without going through the Apple File Exchange utility. Works with DOS floppy drives from Apple, PLI, and Kennect. Dayna's popular DaynaFile drives and DataViz's MacLinkPlus/Translators come with DOS Mounter bundled. Version 2.03 reviewed. Version 3.0 shipping. Requires any Mac with FDHD SuperDrive, external DOS floppy drive, or removable-cartridge drive. $89. Dayna Communications, Inc., 50 S. Main St., Salt Lake City, UT 84144. 801-531-0600. (Aug '91)

Fastback Plus ⧫⧫⧫⧫

Fastback Plus is a backup utility that supports incremental and differential backups and offers a choice of compression levels. Backup configurations can be saved as preference files. Macro language supports automated procedures. Nonstandard dialog boxes are unclear. Version 2.0 reviewed. Version 3.0 shipping. Requires Mac 512Ke or later and System 4.2 or later. $189; upgrades, $30. Fifth Generation Systems, 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (Oct '89)

FEdit Plus ⧫⧫⧫½

FEdit Plus can recover deleted MFS files. Not fully HFS-compatible. Version 1.1 shipping. Requires Macintosh 512Ke or later. $49.95. MacMaster Systems, 108 E. Fremont Ave., #37, Sunnyvale, CA 94087. (408) 773-9834. (Sept '86) ★ '86 Eddy

FetchIt ⧫⧫⧫⧫½

FetchIt is an INIT that puts a pop-up menu on the right side of the small-icon and disk-name dialog boxes. This menu can be used to navigate your mounted drives or do other Finder-type operations. Performance is good. Excellent search capabilities. Version 2.01 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.03 or later. $39. CRA Z Software, P.O. Box 6379, Haverhill, MA 01831. 508-521-5262. (June '90)

File Director ⧫⧫⧫⧫½

File Director is an extremely easy-to-use, versatile, and powerful collection of utilities. It includes Disk Tools (for file management and searching), File Director (an application launcher, formerly called PowerStation), Calendar (a basic monthly appointment and phone-number manager that attaches notes to entries), Phone Pad (a combination notepad and phone dialer), and RPN Calculator and Scientific Calculator (two sophisticated improvements on Apple's Calculator DA). This package is a winner, especially if your hard drives contain many different files and applications. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later. $129. Fifth Generation Systems, 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (Apr '91)

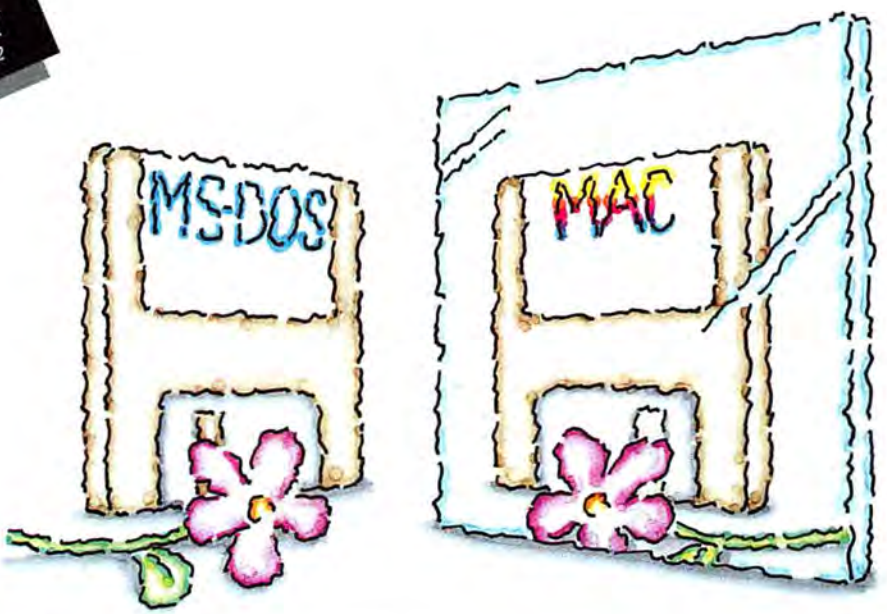
Findswell ⧫⧫⧫⧫

Findswell is a helpful, reliable utility that installs a new button in the Open dialog box of every Mac application. Click on the button, type a search string, and click on Find, then Findswell searches for any files that match. Version 1.1 reviewed. Version 2.2 shipping. Requires Mac Plus or later. $29.95 direct. Working Software, Inc., P.O. Box 1844, Santa Cruz, CA 95061. 408-423-5696. (Nov '87) ★ '87 Eddy

HAM ⧫⧫⧫

HAM (hierarchical Apple menu) is a file-management utility intended for use with System 7. Creates hierarchical pull-down submenus that list contents of folders stored in the Apple Menu Items folder. User-customizable Recent Items folder automatically lists your most frequently

"AccessPC's control over formatting various DOS media is slick."
★★★★
—MacWorld 10/92



Now, MS-DOS Files Can Look Just Like Mac Files.



AccessPC is System 7 savvy as well as completely compatible with Apple's System 6.

With AccessPC®, you just pop any DOS floppy in your drive, and in a couple of clicks, what you see on your desktop are Mac files.

And they not only look just like Mac files, they act just like Mac files in Mac applications.

You can edit, copy, save, print, play with the numbers, print again, and give the PC folks back their diskette.

AccessPC is so easy to use, it gives new meaning to the word *utility*.



Put MS-DOS disks in your SuperDrive, double-click on the DOS file, and open it in your Macintosh application.

Plus, it includes powerful Multi-Driver™ and Media Formatter™ utilities, *free*. You get instant compatibility even with DOS removable cartridges and optical drives. And you can get access up to ten times faster than with other utilities.

Pick it up today. You'll be amazed at how such an inexpensive little utility can make you look so good.

Insignia Solutions®
Bridging Worlds Of Software™

For information on all Insignia's products and services, call our toll free Fax Response Service at **800-8-SOFTPC**.
Insignia Solutions Inc., **800-848-7677**. 526 Clyde Avenue, Mountain View, CA 94043. FAX (415) 964-5434. Call (415) 694-7600.
Insignia Solutions Ltd., Bellfield House, Bellfield Road, High Wycombe, Buckinghamshire, HP13 5HP, UK. FAX +44 494-459720. Call +44 494-459426.

AccessPC and SoftPC are registered trademarks and Multi-Driver and Media Formatter are trademarks of Insignia Solutions Inc. All other product names are trademarks or registered trademarks of their respective owners.

CIRCLE 153 ON READER SERVICE CARD.

accessed files and applications. The HAMlets feature lets you create desktop icons that automatically launch all files and applications that were open when the HAMlet was created. Version 1.0 reviewed. Requires System 7. $99. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (Sept '92)

HAND-OFF II ⭐⭐⭐⭐

HAND-OFF II lets you launch documents, using applications other than those that created the documents. Works with a variety of document types (including graphics). Can remember preferred pixel depth (colors or grays) and volume settings for different programs. Can add a Launch menu that lets you access applications from the Finder menu bar. SuperMenu feature creates hierarchical submenus from the contents of folders kept in your Apple Menu Items folder. Version 2.25 reviewed. Requires Macintosh Plus or later with 2 MB of RAM and System 6.05 or later. $99. Connectix Corp., 2655 Campus Dr., San Mateo, CA 94403. 800-950-5880 or 415-571-5100. (Sept '92)

Hard Disk ToolKit ⭐⭐⭐⭐½

Hard Disk ToolKit is a powerful group of applications that lets you format, partition, diagnose, and optimize SCSI cartridge drives or hard drives. Not for the careless or casual user. The package includes HDT Primer, which controls standard hard-disk formatting options and sets disk-specific parameters such as block size; HDT World Control, an experts-only module that edits a drive controller's SCSI mode-page settings; BenchTest, for measuring disk performance; HDT Prober, a control panel that manages the SCSI chain; HDT Extension, which mounts recalcitrant SCSI cartridges; and HDT Util, a mixed-bag manager of operating-system parameters. Supports A/UX. Excellent manual explains the mysterious science of SCSI. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a SCSI cartridge drive or hard drive. $199.95. FWB, Inc., 2040 Polk St., Ste. 215, San Francisco, CA 94109. 415-474-8055. (May '92)

HFS Backup ⭐⭐⭐⭐

HFS Backup is a top-class backup program. Quick and reliable. Includes everything from a virus checker to partial imaging capabilities. Can't back up removable-cartridge drives. Version 3.0 reviewed. Version 3.5 shipping. Requires Macintosh Plus or later. $99.95. PCPC (Personal Computer Peripherals Corp.), 4 Daniels Farm Rd., Ste. 326, Trumbull, CT 06611. 800-622-2888. (Oct '89)

ImpressIt ⭐⭐⭐⭐½

ImpressIt is a fast file-compression program that shrinks photographic-quality color or gray-scale images. Allows a wide range of JPEG compression levels for 8-, 16-, and 32-bit PICT and TIFF images. Preview feature lets you inspect details of photos at different compression ratios. Includes plug-in module for Adobe Photoshop. Allows creation of self-decompressing files. Built-in virtual-memory capability uses excess hard-drive space when available RAM is insufficient. Version 1.1 reviewed. Requires Mac II series with 2 MB of RAM, a 24-bit display system, and a hard drive. $159. Radius, Inc., 1710 Fortune Dr., San Jose, CA 95131. 800-227-2795 or 408-434-1010. (Sept '91)

INIT-cdev ⭐⭐⭐

INIT-cdev is a no-frills freeware INIT manager that lets you turn INITs on and off simply by clicking on the names in a scrollable list. INIT-cdev is accessible at startup, but it cannot make temporary changes. Version 1.0 reviewed. Version 3.0 shipping. Requires Mac 512Ke or later. Freeware (John Rotenstein); available from on-line services such as ZiffNet/Mac. (Aug '89)

INITPicker ⭐⭐⭐⭐½

INITPicker is a control panel that offers a scrollable list of INITs (extensions) in the System Folder so you can determine their loading order. Holding down a predetermined key combination at startup automatically shuts off all INITs and bypasses the INITPicker screen. Can be invoked at startup. Version 1.0 reviewed. Version 2.02 shipping. Requires Mac Plus or later and System 6.03 or later. $69. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (Aug '89)

MacLinkPlus/PC ⭐⭐⭐⭐⭐

MacLinkPlus/PC offers document-translation capabilities between a vast number of PC and Mac applications. Its interface is friendly and translations are clean. In addition to translating locally or over a network, the package can connect to a PC serially or by modem. Translators also work with AFE. Includes DOS Mounter software from Dayna, which lets PC disks appear on the Mac desktop. Version 3.05 reviewed. Version 7.0 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. MacLinkPlus/PC (with telecommunications), $199; MacLinkPlus/Translators (desktop version only), $169; MacLinkPlus/Wang VS, $395; MacLinkPlus/Wang OIS, $495. DataViz, Inc., 55 Corporate Dr., Trumbull, CT 06611. 800-733-0030 or 203-268-0030. (Oct '89) ★ '89 Eddy

MacLinkPlus/Translators ⭐⭐⭐⭐½

MacLinkPlus/Translators is a file-translation package that exchanges a wide variety of text, database, spreadsheet, and graphics files between Macs and PCs. Includes DOS Mounter software from Dayna, which lets PC disks appear on the Mac desktop. Translation of text-formatting elements, such as headers, footers, and even footnotes, is generally faithfully rendered. Good graphics conversion between PC formats such as PCX, TIFF, and Windows BMP as well as Mac equivalents. Easy to use. Provides more than 350 translator pairs. Version 5.0 reviewed. Version 7.0 shipping. Requires Apple File Exchange, System 6.03 or later, a hard drive, and either SuperDrive (or other PC-disk drive) or network file-transfer. $169. DataViz, Inc., 55 Corporate Dr., Trumbull, CT 06611. 800-733-0030 or 203-268-0030. (July '91)

MacTools ⭐⭐⭐⭐

This powerful collection of utilities provides data recovery, network-capable virus protection, excellent disk optimization, and backup. Consistent, well-engineered user interface. Large-scale data recovery can be slow and has minor bugs. Undelete feature works quickly and reliably on specific files or file types. Backup module manages tape drives, floppies, removable cartridges, and hard drives. Automatic, recurring backups can be scheduled, as can such options as compression, encryption, and virus scanning. Version 2.0 reviewed. Requires Macintosh Plus or later, System 6.05 or later, and 2 MB of RAM. $149. Central Point Software, Inc., 15220 N.W. Greenbrier Pkwy, Ste. 200, Beaverton, OR 97006. 800-445-4208 or 503-690-8088. (Nov '92)

MasterFinder ⭐⭐⭐⭐

MasterFinder is a well-conceived program that offers several advantages even over System 7's version of the Finder. Comes as both a DA and an application, both of which let you navigate files and folders, using dynamically updated pop-up menus and scrolling lists of folder contents. Allows files to be automatically opened by an application even if it didn't create the file. Can display available network zones and the names of devices connected within each zone. Includes shutdown, restart, and support for Apple events. Version 1.2 reviewed. Version 1.21 shipping. Requires Macintosh Plus or later with 2 MB of RAM. $149. Olduvai Corp., 7520 Red Rd., Ste. A, South Miami, FL 33143. 800-822-0772 or 305-665-4665. (Dec '91)

Mr. File ⭐⭐½

This file-management DA has a hard time competing favorably with the Finder under either System 6 or 7. Its most useful feature is its ability to

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

SoftDirect™ Your Shortcut to Savings

ACCOUNTING

CHECKMAR Cash Ledger	$109
Multiledger V2.0	220
Payroll V4.6	169
COMPUTER ASSOCIATES	
Accpac Simply Mac V1.3	109
INTUIT Quicken V3.0	42
MECA Managing Your Money V5.0	45
PEACHTREE Accounting	79
Insight Acct For Mac	289
SOFTSYNC Accountant Inc/Multi User	526
Accountant Inc CLC V3.0	315
TELEWARE	
M.Y.O.B. V3.0	130
TIME	
Accounting Link-Mac	51
Timeslips III V2.1	189

CAD

AMERICAN SMALL BUSINESS	
DesignCAD 2D/3D	141
AUTODESK	
Generic CADD V2.0	280
CLARIS Claris CAD 2.0	599
MACROMED Modelshop II	547
RAYDREAM Designer 2.0	567

COMMUNICATION / UTILITIES

ABBOTTS Calc+	38
Can Opener V2.0	59
ALADDIN	
Stuffit Deluxe V3.0	63
Stuffit Spacesaver V1.0	33
ALSOFT	
Alsoft Power Utilities	61
Diskexpress II V2.10	45
APPLE Macintosh Systm V7 Group Upgd	259
Macintosh Systm V7 Prsnl Upgd	95
Quicktime Starter Kit	149
ARTICULATE SYSTEMS	
Voice Navigator/ Headset Mike	305
ASANTE Person To Person Ten Pack	236
Person To Person Zone Pack	414
AVERY INT'L MacLabelPro	44
BERKELEY Moreaftedarkv 1.0 +Afterdarkv2.0	38
Star Trek- The Screen Saver 1.0	37
Stepping Out II V2.02	49
CASADY & GREENE	
Crash Barrier V1.0	47
CE SOFTWARE	
Disktop V4.0	67
Quickeys V2.1.2	88
Tiles V1.0	67
CENTRAL POINT	
Mactools 2.0	99
CLARIS Hyper Card 2.1.1	138
CONNECTIX CPU Connectix Powerbook Utilities	48
Hand Off II V2.2.1	53
CUSTOM APPLICATIONS	
Freedom Of Press Light V3.03	83
DANTZ DEVELOPMENT	
Retrospect Remote 10-Pack	144
Retrospect Remote 50-Pack	639
Retrospect Remote V1.3	259
Retrospect V1.3	142
DATAVIZ Maclink Plus Translator V6.0	101
Maclink Plus/Pc V6.0	123
DAYNA COMMUNICATIONS	
Dos Mounter V3.0	47
FARALLON	
Timbuktu V4.02	127
Timbuktu/Remote V3.0	127
FIFTH GENERATION	
Disklock Mac V2.1	117
Fastback Express Mac V1.0	54
Fastback Plus Mac V3.0	116
File Director Mac V3.1	79
Public Utilities	97
Suitcase V2.1	48
Superlaserspool V3.0	91
Superspool V5.0	$61
FWB SOFTWARE	
Hard Disk Tool Kit V1.1	122
GDT SOFTWARE	
Betterwriters V1.0	37
Powerprint	93
ICOM SIMULATIONS	
On Cue II	54
INSIGHT Macprint V1.3	88
INSIGNIA	
Accesspc V2.0	56
Entry Level Softpc V2.5	119
Softat V2.5	297
Softnode V1.0	103
Universal Softpc V2.5	189
KENT MARSH	
Folderbolt V1.01	69
Night Watch II	87
KIWI SOFTWARE	
Kiwi Power Windows V1.5	49
MAGNA	
Empower II V4.0.7	147
MAXA	
Snooper-Software Only	117
MICROCOM	
Microcom 911 Utilities	97
Virex V3.8	65
MICROSOFT	
MS Mail 5 Pk V3.0	267
NOW SOFTWARE	
Now Up-To-Date Single User	61
Now Up-To-Date 5 User Pk	249
Now Utilities V. 3.0.2.	76
PALOMAR	
Plottergeist V2.0	249
SALIENT Autodoubler V2.0	55
Disk Doubler V3.7	49
SITKA Tops For Mac V3.1	175
SYMANTEC	
Antivirus For Mac (Sam) 3.0 More V3.1	61
Norton Utilities Mac V2.0	259
Sum II V2.1	89
SYNERGY	
Versaterm Pro V3.6	94
Versaterm V4.6	167
TEKNOSYS Help V1.03	87
THOUGHT I COULD	
Wallpaper	87
WHITE PINE Exodus V4.0	35

DATABASE

ACIUS	
4th Dimension V2.2.3	189
ADVANCED SOFTWARE	
Intouch V1.1	39
AEC SOFTWARE	
Fasttrack Resource	135
AFTER HOURS	
Touchbase V2.0	73
BASELINE PUBLISHING	
Database V1.5	64
BORLAND	
Dbase Iv Runtime Plus	139
CERES SOFTWARE	
Inspiration V3.01	147
HELIX Double Helix V3.5	389
MICROSOFT File V2.0	119

DESKTOP PUBLISHING/ GRAPHICS

3G GRAPH	
Images W/Impact	Call
ADOBE	
Adobe Illustrator 3.2+Atm	355
Adobe Photoshop 2.0 W/ Atm	539
Adobe Premiere 2.0	307
Adobe Premiere 2.0 Upgrd	140
Adobe Streamline 2.0	119
Adobe Type Align 1.0.5	61
ATM Plus Pack	119
ATM 2.0.3	61
Adobe Type Reunion	41
Adobe Type Set 1: Calculus	61
Adobe Type Set 2: Geometry	61
Adobe Type Set 3: Physics	119
Best Sellers	
Adobe Type Set: Letters & Memos	91
Adobe Type Set: Overhead & Slides	91
Adobe Type Set: Spreads & Graphs	$91
Font # 1 To 315	Call
ALDUS	
Beyond Dark Castle	34
Dark Castle	34
Freehand Mac 3.1	385
Gallery Effects	129
Intellidraw Mac	193
Pagemaker V4.2a	489
Personal Press V2.0	94
Persuasion 2.12 Mac	318
Super3d V2.5	318
Supercard V1.6	193
Superpaint V3.0	129
ALTSYS Eps Exchange 2.0	84
Fontographer V3.5	249
Metamorphosis Pro V2.0	84
BITSTREAM	
Type Essentials Headlines Type Essentials	44
Letters & Memos Type Essentials Newsletters	69
Type Essentials Spreadsheets	69
BRODERBUND Print Shop	34
Typestyler 2.0 W/ Atm	124
CAERE Image Assistant Omnipage Professional 2.1	329
CALERA Wordscan V1.0	625
CASADY & GREENE	
Fluent Laser Fonts Library II	97
CLARIS Macdraw II 1.1	138
Macdraw Pro 1.5 Macpaint 2.0	274
COMPUTER ASSOCIATES	
CA-Cricket Draw III V1.0	159
CA-Cricket Graph III	115
DENEBA Canvas V3.0	249
DESK TOP GRAPHICS	
Draw Art (Each)	44
FRACTAL DESIGN	
Fractal Design Painter	219
INNOVATIVE DATA DESIGN	
Macdraft V2.1	265
LETRASET	
Design Studio Color Separator	198
MACROMED	
Swivel 3d Professional	399
Swivelman V1.0	529
PIXAR Showplace And Macrenderman	369
QUARK QuarkXpress V3.1	539
RAYDREAM Jag V1.0	70
STRATA INC.	
Stratavision 3d 2.5	599
T/MAKER	
Artistry & Borders (Eps)	79
Clickart Publications	39
TIMEWORKS Color It! 2.0 Publish It! Easy	167
VENTURA PUBLISHING	
Ventura Pub V3.2 Gold	479
VISUAL B.S. Graphmaster	189

EDUCATION ENTERTAINMENT

ACCOLADE Hardball II	39
Ishido	39
Nam 1965-1975	34
Nicklaus Greatest 18 Holes	39
The Duel: Test Drive II	39
AMAZE	
Cathy Daily Planner 2.0	49
Far Side Daily Planner 2.0	49
Trivial Pursuit-SportsEd.	49
ARS NOVA SOFTWARE	
Practica Musica V2.3	63
BASELINE PUBLISHING	
Spectator V1.0	74
Thunder 7	50
BRODERBUND	
Ancient Art Of War	32
Ancient Art Of War At Sea	32
Bannermania	37
Calculus	55
Geometry	55
Kid Pix V1.2	34
Might And Magic I & II	32
Physics	55
Playmaker Football	32
Prince Of Persia	32
Simant	33
Simcity Supreme	45
Simearth	39
Where In America Past Carmn Sd	$34
Where In World Is Carmen Delux	45
CASADY & GREENE	
Mission: Thunderbolt	34
CENTRON	
Casino Master Standard	41
COMPU-TEACH	
Destination:Mars!	32
DAVIDSON & ASSOC.	
Algeblaster Plus	33
Earthquest V2.0	33
Headline Harry And The Great	33
New Math Blaster Plus	33
ELECTRONIC ARTS	
4-D Boxing W/Tru-Motion	31
AD&D: Pools Of Darkness	37
AD&D: Curse Of Azure Bonds	37
Harpoon	37
Pga Tour Golf V1.1	35
GRAPHIC	
Hellcats Over The Pacific	38
HYPER GLOT Chinese Pronunciation Tutor	37
French Tense Tutor	37
Pronunciation Tutor-French	33
Pronunciation Tutor-German	37
Pronunciation Tutor-Spanish	33
Spanish Tense Tutor	35
Word Torture-French V4.0	32
Word Torture-Russian V4.0	32
Word Torture-Spanish V4.0	32
INLINE DESIGN	
Ham	47
Initpicker V2.0	33
Mutant Beach	39
Redux V1.63	47
JIAN Living Trust Builder	89
LEARNING	
Supersolvers Midnight Rescue!	33
Talking Math Rabbit	34
Talking Reader Rabbit 1 V3.0	33
Writing Center	49
MICROLYTICS	
Random House Encyclopedia	67
MICROPROSE	
Railroad Tycoon	38
MICROSOFT	
MS Flight Simulator V4.0	41
PERSONAL Training Series	55
SIERRA ON-LINE Ecoquest I Leisure Suit Larry V	39
Red Baron	39
Space Quest IV	39
SOFTWARE TOOL WORKS	
Miracle-Piano Teaching System	339
SPECTRUM HOLOBYTE	
Tetris (Mac/Mac II)	32
SYNERGY	
Kaleidagraph V2.1	139
VELOCITY	
Spectre Lan Pak V1.0	57
Spectre V1.0	37
XOR Macgolf Classic V1.1	49

PRESENTATION / PROJECT MANAGEMENT

ABACUS Stat View V4.0	49
Statview Se+Graphics V1.04	206
Statview Student	70
Superanova V1.11	352
AEC SOFTWARE	
Fasttrack Schedule V2.0	150
AFTER HOURS	
Date Book 1.0	75
ATTAIN In Control	80
BANNER BLUE	
Org Plus For Mac V1.0	115
BEAGLE	
Beagleworks V1.01	176
BRODERBUND MacGlobe	43
MacUSA	32
CASADY & GREENE	
Super Quickdex	48
CE SOFTWARE	
Alarming Events V1.1	79
CLARIS Macproject 2.5	344
Macproject Pro V.1.1	$419
Smartform Assistant 1.1	39
Smartform Designer	279
DELTAPOINT	
Deltagraph Professional	186
JAM SOFTWARE Smart Alarms + Appt. Diaries	69
JIAN Bizplanbuilder	79
KAETRON	
Flow Chart Express 1.0	89
Top Down 3.1	189
MACROMED	
Macromedia Action V1.0 Macromind	339
Director 3.1	749
Macromodel V1.0	989
Magic	229
Micromind Three-D	974
Sound Edit Pro Software	195
MICROSOFT	
Powerpoint 2.01	269
MS Project Mac 3.0	439
NOLO PRESS How To Form Your Own Ny Corp	39
How To Form Your Texas Corp	39
Living Trust	42
PASTEL Daymaker V1.01	58
PORTFOLIO	
Dynopage-U.S. V1.7	72
PRESCIENCE	
Expressionist V3.0	105
Theorist V1.11	239
PROVUE	
Panorama II V2.05	237
REALTY Wealthbuilder	92

INTEGRATED

CLARIS Clarisworks	199
MICROSOFT	
MS Office V2.5	474
MS Works V3.0	155
MS Works V3.0 Upgd	79
SYMANTEC	
Greatworks 2.0	132
WORDPERFECT	
WP Office 3.0 Sgl	89
WP Office 3.0 5-Usr	289

PROGRAMMING

SYMANTEC	
Just Enough Pascal V1.0	49
Think C V5.0	197
Think Pascal V4.0	158
Think Reference V1.0	67
ZEDCOR Z Basic V5.0	95

SPREADSHEET

CLARIS Resolve 1.1	169
INFORMIX Wingz V1.1	244
LOTUS	
1-2-3	317
1-2-3 Competitive Upgrd	96
MICROSOFT	
Excel 4.0	294
Excel 4.0 Upgd	88

WORD PROCESSING

BORLAND	
Fullwrite Professional 1.5	167
CLARIS Macwrite II 1.1	89
MICROLYTICS	
Wordfinderplus 4.0	38
MICROSOFT	
Word 5.0	289
Word 5.0 Version Upgrade	123
NISUS	
Nisus Compact 3.3 Pwrbks	79
Nisus V3.0.6	229
QUE SOFT Rightwriter 3.2	53
REFERENCE	
Grammatik 2.0	55
T/MAKER	
WriteNow 3.0 w/Grammatik	147
WORDPERFECT	
Wordperfect 2.1 Mac	278
WP 2.1 Upgrade	79
WORDSTAR	
American Heritage Dictionary	54
Correct Grammar 3.0	54
Correct Letters	31
Correct Quotes	31
Correct Writing	31

CIRCLE 55 ON READER SERVICE CARD.

The SoftDirect Difference

- Hours: 7:00 am - 6:00 pm PST, Monday to Friday
- Prices subject to change without notice, call for current prices.
- 30 days return policy on non-defective products.
- Prompt replacement of defective goods.
- 15% restocking fee on non-defective goods
- $5.00 on C.O.D. with $1000 limit, cashiers check or money order only.
- Visa and Mastercard, personal and company checks accepted, no surcharge.
- Credit card not charged until order is shipped.
- Shipping: UPS Ground, $7.00 per order up to 7 lbs. $1.00 per pound over 7 pounds.
- Next day and second day deliveries available.
- Corporate POs, FPOs, and APOs welcome.
- Government and education pricing available.
- No minimum order.
- Call for products not listed.

CALL US TOLL FREE

1-800-800-2220

Customer Service: (818) 369-0173

MasterCard SoftDirect VISA

1301 John Reed Court, City Of Industry, California 91745 • International Orders: (818) 369-3873 • Fax: (818) 336-5281

perform tasks in the background such as searching and copying. Ideal for users who frequently conduct time-consuming operations such as downloading large files over a network. Version 1.1 reviewed. Version 1.11 shipping. Requires Mac Plus or later, System 6.03 or later, and 2 MB of RAM. $99. Softways, 5066 El Roble, San Jose, CA 95118. 408-978-9167. (Dec '91)

MultiDisk ⭐⭐⭐⭐

MultiDisk is an excellent software disk partitioner that allows partitions to be dynamically resized, password-protected, and even encrypted. Can't erase partitions from the Finder. Version 1.11 reviewed. Version 1.27 shipping. Requires System 6.03 or later. $89.95. ALSoft, Inc., P.O. Box 927, Spring, TX 77383. 713-353-4090. (May '89)

NetStream ⭐⭐

NetStream includes network backup-server and client applications. Can't restore directly to clients over a network but has good file-selection features for restore. Clumsy interface. Software supports the PCPC Jetstream tape drive. Version 2.0.4 reviewed. Version 2.1 shipping. Requires Mac Plus or later and a hard drive. 10-client software package, $399.95 PCPC (Personal Computer Peripherals Corp.), 4 Daniels Farm Rd., Ste. 326, Trumbull, CT 06611. 800-622-2888. (Aug '91)

Nightshift ⭐⭐⭐½

Nightshift includes network backup-server and client applications. Fast, easy to use and install. Limited file-selection features for backup. No scripting options. Version 1.5 reviewed. Requires Macintosh Plus or later and a hard drive. $495 (includes site license). TTI (Transitional Technology, Inc.), 5401 E. La Palma Ave., Anaheim, CA 92807. 714-693-7707. (Aug '91)

Norton Utilities for the Macintosh ⭐⭐⭐⭐½

This package provides complete tools for protecting and restoring data on your hard drive. Highly recommended. Can optimize hard-drive performance and speed up searches for missing files. Lets you modify the appearance of Finder windows. Can handle backups, password security, and disk organization. KeyFinder DA displays all available keyboard characters and special combinations. Latest version integrates enhanced features of SUM II package. Version 2.0 reviewed. Requires Macintosh Plus or later and System 6.04 or later. $149. Symantec Corp., 10201 Torre Ave., Cupertino, CA 95014. 800-441-7234 or 408-253-9600. (Sept '92) ★ '90 Eddy

OffLine ⭐⭐⭐½

OffLine is a utility that tracks floppy disks' contents and saves an index on your hard disk. Has a simple, well-designed interface but relatively few bells and whistles. File-search function is limited but adequate for most users. Can also track the contents of other removable media, file servers, and hard drives. Saves a unique serial number for each indexed volume and can print this number along with a list of volume contents on labels. Version 2.1 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and a hard drive. $99.95. SNA, Inc., P.O. Box 3662, Princeton, NJ 08543. 800-628-6442 or 609-799-9605. (Mar '92)

On Cue ⭐⭐⭐½

On Cue lets you switch among files and applications without returning to the Finder. Under MultiFinder or System 7, user-specified applications are listed in a menu. Can launch directly to a specific document or to groups of files and applications. Shows contents of folders as hierarchical submenus. On Disk feature manages pop-up menus that let you create new folders from within standard Open and Save dialog boxes; duplicate and rename files; and find files, folders, and disks using comprehensive search criteria. Version 2.01 reviewed. Requires Mac Plus or later and System 6.03 or later. $99.95. ICOM Simulations, Inc., 648 S. Wheeling Rd., Wheeling, IL 60090. 800-877-4266 or 708-520-4440. (Sept '92)

On Location ⭐⭐⭐⭐

On Location finds files and text strings. Once they're found, you can view file contents (for most common document formats); open a file in its native application; or copy, delete, rename, or move a file. Main asset is blazing speed. Nonstandard interface. Has one-year, money-back guarantee. Version 2.0 reviewed. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $129. ON Technology, Inc., 155 Second St., Cambridge, MA 02141. 617-876-0900. (Dec '92)

PickTure ⭐⭐⭐⭐½

PickTure is an INIT and control panel that serves as a visual file selector. Presents rows of miniature screen shots of all files that a selected application can open. Double-clicking on the screen shots opens the desired file. Radio buttons customize navigation through folders. Latest version can create custom color icons. Version 1.0 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later and System 6.03 or later. $89.95. Right Answers, Inc., P.O. Box 3699, Torrance, CA 90510. 818-840-8021. (July '91)

PicturePress ⭐⭐⭐⭐

This file-compression program shrinks photographic-quality color or gray-scale images. Allows wide range of JPEG compression levels for 24-bit PICT or TIFF images. Plug-in module for Adobe Photoshop uses Photoshop's built-in virtual-memory capability. Includes free decompression-only utility for unlimited noncommercial distribution. Allows selected areas within images to be compressed at different ratios. Optional accelerator card reduces compression/decompression times to a few seconds. Version 1.03 reviewed. Version 2.04 shipping. Requires Macintosh II series or higher with 2 MB of RAM, a 24-bit display system, and a hard drive. $199; with PhotoFlash accelerator, $999. Storm Technology, Inc., 1861 Landings Dr., Mountain View, CA 94039. 415-691-6600. (Sept '91) ★ '91 Eddy

POWERicons ⭐⭐⭐⭐

POWERicons creates duplicate application icons for simple and efficient hard-disk-drive organization. POWERicons can open sets of frequently used icons and print document batches. Easy and fast setup. Good manual. Version 2.0 shipping. Requires System 6.03 or later. $49.95. Magic Software, Inc., 2239 Franklin St., Bellevue, NE 68005. 800-342-6243 or 402-291-0670. (Feb '90)

QTBackup with QTShare ⭐⭐⭐½

This software bundle includes network backup-server and client applications. Powerful, easy-to-use scripting. Slow and doesn't automatically restore incremental backups in correct order. Supports other Tecmar tape drives. Excellent documentation. Version 2.04 QTBackup and 1.0 QTShare reviewed. Version 3.0 QTBackup shipping. Requires Macintosh Plus or later and a hard drive. $149. Tecmar, Inc., 6225 Cochran Rd., Solon, OH 44139. 800-624-8560 or 216-349-0600. (Aug '91)

Redux ⭐⭐⭐⭐½

Redux is an excellent incremental-backup program. Lets you back up files, folders, or entire volumes. You can write scripts, using BackTalk, the Redux control language. Comes with Redux Restore, a restore utility that can be distributed freely. Version 1.5 reviewed. Version 1.63 shipping. Requires Macintosh Plus or later and System 6.03 or later. $99. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (July '89)

Retrieve It! ⭐⭐⭐⭐½

This file-search utility can find words, phrases, or complex text combinations in documents and file names. Works with any file on any mounted floppy or SCSI volume. Can view contents of found text files without launching their parent applications. Powerful search operators let you define precise search criteria. Searches are interruptible. Good on-line help. Version 1.0 reviewed. $129. MVP

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐



Ms. Karen Milne, Director of Marketing, Insignia Solutions

Insignia Solutions

"SoftPC is the best selling software solution for bringing PC compatibility to the Macintosh. Thanks to its success, Insignia Solutions is growing at a phenomenal rate.

MacUser is a sign of profit for Insignia.

"We've been running one ad every month for quite a while in MacUser—which is a large commitment for a company of our size. But when you look at advertising as an investment in growth, there's no alternative. We concentrate on getting the most profitable return on that investment, which is why we never miss an issue of MacUser.

"With MacUser, the editors understand that product information is of utmost importance to business buyers who need to know about available products...and which ones they should purchase.

"Our MacUser advertising has been getting such overwhelming sales that we have to add phone lines on a regular basis to take the extra inquiries. It seems like every time we add a phone line, it's busy. So, that's how we know that MacUser is pulling.

"The ads work so well because MacUser is, first and foremost, a business publication. MacUser is the number one source for unbiased editorial reporting on the products that are vital to business. And based on the responses from people calling in, our marketing plans lean heavily toward MacUser. The ads that we've run have generated the response we need. We know the best way to go is by putting our dollars in MacUser."

MacUser
MEANS BUSINESS

Software, P.O. Box 282, Cupertino, CA 95015. 800-446-7500 or 415-599-2704. (Dec '92)

Retrospect ⭐⭐⭐⭐½

Retrospect is a full-featured backup and archival package. Supports storage devices from floppies to DAT drives. Retains AppleShare access privileges. Version 1.3 reviewed. Requires Mac Plus or later and System 6.03 or later. $249. Dantz Development Corp., 1400 Shattuck Ave., Ste. 1, Berkeley, CA 94709. 510-849-0293. (Dec '92) ★ '89 Eddy

Retrospect Remote ⭐⭐⭐⭐½

Retrospect Remote includes network backup-server and client applications. Fast and restores files to clients over the network quickly. Confusing documentation, and all users must be registered. Version 1.2 reviewed. Version 1.3 shipping. Requires Macintosh Plus or later and a hard drive. $449. Dantz Development Corp., 1400 Shattuck Ave., Ste. 1, Berkeley, CA 94709. 510-849-0293. (Aug '91)

Shortcut ⭐⭐⭐⭐

Created by Raymond Lau, Shortcut is an INIT that greatly increases the functionality of Open and Save dialog boxes, simply by adding numerous options for creating new folders, going directly to or getting information about any folder, opening any file, or unstuffing any StuffIt archive. (Aladdin also markets Lau's popular StuffIt compression program.) Performance is excellent. Version 1.5 reviewed. Version 1.52 shipping. Requires Macintosh Plus or later and System 6.03 or later. $79.95. Aladdin Systems, Inc., 165 Westridge Dr., Watsonville, CA 95076. 408-761-6200. (Sept '91)

Shredder ⭐⭐⭐⭐

Shredder provides three ways to delete files: all zeros, random ones and zeros, or the government specification 5220.22m. Included Scrubber application erases unused areas on your hard drive, preventing file-recovery programs from retrieving erased information. Dragging and dropping file or disk icons onto the Shredder or Scrubber application icons imitates use of the Finder's Trash icon. Allows automatic, scheduled shredding or scrubbing. Supports Apple-event access from programs such as HyperCard, QuicKeys, or Frontier. Ignores locked files. Cute but annoying sound effects can be disabled. Version 1.01 reviewed. Requires System 7 or later. $69. DLM Software, Inc., 3525 Del Mar Heights Rd., Ste. 319, San Diego, CA 92130. 619-283-2343. (Sept '92)

Silverlining ⭐⭐⭐⭐½

Silverlining is an advanced hard-disk-utility set. Excellent disk-partitioning software available. Formats most hard-disk drives. Powerful, safe optimizing and testing features. Excellent performance. Includes DS Backup (backup software) and a good disk duplicator. Version 4.0 reviewed. Version 5.4 shipping. Requires Mac Plus or later and SCSI mass-storage device. $149 direct. La Cie Ltd., 8700 S.W. Creekside Place, Beaverton, OR 97005. 800-999-0143 or 503-520-9000. (Jan '90)

SnapBack ⭐⭐⭐½

This easy-to-learn network-backup program lets users set their own backup preferences and access archives without the help of a network administrator. Included SnapBack Setup software lets administrator designate different space allocations for multiple users. SnapBack program on each Mac controls backup schedule, file and folder selection, and whether all data selected for backup will fit in their space allocation on the server. Has password protection for each user. Files are backed up as standard, uncompressed Mac documents instead of in proprietary compressed format, so network backup or archive retrieval is slower but allows direct user access through Finder or SnapBack. Version 1.0 reviewed. Requires dedicated high-capacity hard drive (or removable-media drive) connected to a network server. $129. Golden Triangle Computers, Inc., 4849 Ronson Ct., San Diego, CA 92111. 800-326-1858 or 619-279-2100. (Dec '92)

Software Bridge/Mac ⭐⭐⭐½

Software Bridge is a collection of file translators for PC-to-Mac file conversion. Used with the AFE program, Software Bridge provides translators for three Mac word-processing formats (Word, WordPerfect, and MacWrite) and more than 20 DOS formats. It has no translation options for graphics and spreadsheet files. Mac version does a good job of converting PC text files while retaining the original formatting. Version 1.0 reviewed. Version 2.2 shipping. Requires Macintosh Plus or later and System 6.03 or later. $129. Systems Compatibility, Inc., 401 N. Wabash, Ste. 600, Chicago, IL 60611. 800-333-1395 or 312-329-0700. (Mar '91)

StuffIt Deluxe ⭐⭐⭐⭐½

StuffIt Deluxe started out as the commercial version of the shareware program StuffIt, a file-compression and -archiving utility. This powerful, much improved Deluxe version is still quick and easy to use, and it provides nearly every feature required for compression of large single or multiple files. Capable of creating self-extracting archives which can be opened on any Mac that doesn't have the original StuffIt Deluxe application. Now includes security features, optional compression speeds, and a control panel for quick access. Version 2.0 reviewed. Version 3.01 shipping. Requires Macintosh Plus or later and System 6.05 or later. $120. Aladdin Systems, Inc., 165 Westridge Dr., Watsonville, CA 95076. 408-761-6200. (Sept '91)

StuffIt Lite ⭐⭐⭐⭐⭐

StuffIt Lite (formerly StuffIt Classic) compresses files to reduce the amount of space they occupy on-disk. Great for transferring documents via modem. Also joins and encrypts files. Version 1.5 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 6.05 or later. Shareware, $25. Aladdin Systems, Inc., 165 Westridge Dr., Watsonville, CA 95076. 408-761-6200. (Dec '88)

SUM II (Symantec Utilities for Macintosh) ⭐⭐⭐⭐

SUM II is an upgraded, expanded version of the excellent SUM data-recovery package. Includes utilities for partitioning, encrypting, backing up, defragmenting, and optimizing floppies and hard drives. Straightforward and reliable for defragmenting and optimizing, but less easy to use for undeleting files. SUM II will become part of Symantec's Norton Utilities package. Version 1.0 reviewed. Version 2.1 shipping. Requires Mac Plus or later and System 6.03 or later. $149. Symantec Corp., 10201 Torre Ave., Cupertino, CA 95014. 800-441-7234 or 408-253-9600. (Dec '89) ★ '88 Eddy

SuperDisk! ⭐⭐⭐½

This file-compression program is fast and reasonably easy to use. Unlike StuffIt and Compact Pro, doesn't combine multiple files into one compressed archive (useful for transmitting sets of related files via modem). Degree of compression is good but can't match DiskDoubler or Compact Pro. All files placed in a designated folder can be automatically compressed. Compressed files automatically decompress without significant delay when opened by their creator applications. Control-panel interface is handy and compact but somewhat confusing. Version 1.7 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $89. Alysis Software Corp., 1231 31st Ave., San Francisco, CA 94122. 415-566-2263. (Apr '92)

Tiles ⭐⭐⭐

Tiles is a Finder-enhancement utility designed to keep frequently-accessed files and applications at your fingertips. Uses file-cabinet metaphor with drawers for files or applications, both of which are opened via scrolling windows of icon-tagged tiles. Doesn't measure up to similar utilities, and redundant if you already understand advanced features built into the Mac's Finder. Good for anyone who wants

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

SNOOPER™

DESKTOP DIAGNOSTICS

LETS YOU FIND THE PROBLEM

INCLUDES FREE NORTON UTILITIES 2.0

· SCSI TESTS · I/O TESTING · AUDIO TESTS · ERROR LOGGIN

MAXA™

DIAGNOSTIC SOFTWARE FOR MACINTOSH

The next time you see a 'sad Mac' on your screen or your Mac's performance isn't up to par, DIAGNOSE FROM YOUR DESK with SNOOPER, the revolutionary new standard for Mac diagnostic and testing tools. Snooper performs a comprehensive suite of tests, CHECKS ALL YOUR HARDWARE and identifies any problems. And the same SNOOPER software runs on all Macs.

SNOOPER is easy to use and saves time and money. Complete your Mac utilities with SNOOPER, the hardware diagnostic, and until Dec. 31, 1992, get Norton Utilities free.

MAXA Corporation 116 MARYLAND AVENUE • GLENDALE, CA 91206 IN THE US AND CANADA CALL: 800-788-6292

MAXA and SNOOPER are trademarks of MAXA Corporation. Other product and company names are trademarks of their respective owners. ©1992 MAXA Corporation. All rights reserved.

CIRCLE 90 ON READER SERVICE CARD.

1-800-854-6227 1-800-854-MACS 1-800-854-6227 1-800-854-6227

FEATURING

SyQuest® REMOVABLE TECHNOLOGY

ClubMac 44mb	SQ555	Actual MAC Capacity: 42mb	$399
ClubMac 88mb	SQ5110	Actual MAC Capacity: 84mb	$499
ClubMac Dual 44mb			$749
ClubMac Dual 88mb			$919
ClubMac Dual 44mb & 88mb*			$889
Internal 44mb for Quadra 900 / 950			$389
Internal 88mb for Quadra 900 / 950			$489
44mb Cartridge (10 pack-$62 each)			$64
88mb Cartridge (10 pack-$96 each)			$99

SyQuest Drives include a TWO Year Warranty, one cartridge & necessary cables, SCSI Director™ v.2.4 Formatting Utility. * Includes (1) 44mb & (1) 88mb cartridge • SyQuest Cartridges carry a ONE Year Warranty.

NOW AVAILABLE SyQuest Drives for Quadra 900/950



New ELS Series

Quantum

Unformatted Capacity	Model	Description	Actual MAC Capacity	Internal	External
80mb	Go•Drive	2.5" Low Profile 17ms	80mb	$329	$429
120mb	Go•Drive	2.5" Low Profile 17ms	120mb	$459	$559
42mb	ELS42	3.5" Low Profile 19ms	40mb	$185	$245
85mb	ELS85	3.5" Low Profile 17ms	82mb	$269	$329
127mb	ELS127	3.5" Low Profile 17ms	124mb	$329	$389
170mb	ELS170	3.5" Low Profile 17ms	160mb	$385	$445
52mb	LPS50	3.5" Low Profile 11ms	49mb	$209	$269
105mb	LPS105	3.5" Low Profile 11ms	100mb	$319	$379
120mb	LPS120	3.5" Low Profile 10ms	116mb	$349	$409
240mb	LPS240	3.5" Low Profile 10ms	234mb	$589	$649
425mb	PRO425	3.5" Half Height 9ms	406mb	$899	$959

ELS drives have 32K cache, low power consumption, MTBF of 250,000 hrs and TWO Year Warranty. LPS drives have 64K - 256K cache, MTBF of 250,000 hrs, and TWO Year Warranty. PRO drives have 256K cache, MTBF of 150,000 hrs, and TWO Year Warranty. Go•Drives have 32K cache, low power consumption, MTBF of 150,000 hrs, and ONE Year Warranty.

Maxtor®

Unformatted Capacity	Model	Description	Actual MAC Capacity	Internal	External
120mb	7120XT	3.5" Low Profile 15ms	121mb	$329	$389
207mb	7213	3.5" Low Profile 15ms	202mb	$479	$539
330mb	LXT-340	3.5" Half Height 15ms	324mb	$679	$739
535mb	LXT-535	3.5" Low Profile 12ms	510mb	$1029	$1089
645mb	XT-8760S	5.25" Full Height 16.5ms	639mb	$1229	$1329
1.2GIG	PO-12S	5.25" Full Height 13ms	997mb	$1549	$1649
1.7GIG	PO-17S	5.25" Full Height 13ms	1433mb	$1779	$1879

Maxtor 3.5" Drives include a 1Year Warranty. Maxtor 5.25" Drives include a 2 Year Warranty.

ClubMac OPTICAL Drives

Model		Capacity	Description	Seek	External
CMO-OD3000	Teac	128mb	3.5" Half Ht	45ms	$1179
CMO-LF3004	Panasonic	128mb	3.5" Half Ht	45ms	$1169
CMO-3100E	Ricoh	128mb	3.5" Half Ht	45ms	$1249
CMO-3051E	Ricoh	594/652mb	5.25" Full Ht	28ms	$2695
CMO-5030E2	Ricoh	594/652mb	5.25" Full Ht	66.7ms	$2149
128mb Cartridge		3.5" Single Sided			$39
594/652mb Cartridge		5.25" - 512/1024 bytes/sec			$99

All ClubMac Opticals include ONE cartridge and ONE Year Warranty.

NEW!

MICROPOLIS

Capacity	Model	Description	Access Time	Internal	External
1.0GIG	2112	3.5" Half Ht./Fast SCSI-2	10ms	$1959	$2019
2.0GIG	1924	5.25" Full Ht./Fast SCSI-2	11.5ms	$3129	$3299

5 YEAR WARRANTY

FUJITSU

Unformatted Capacity	Model	Description		Actual MAC Capacity	Internal	External
425mb	M2623SA	3.5" Half Height	9ms	405mb	$969	$1029
520mb	M2624SA	3.5" Half Height	9ms	496mb	$1035	$1095
1.2GIG	M2266	5.25" Full Height	14.5ms	1029mb	$1589	$1689

Featuring ... the Elite Series

Seagate

Unformatted Capacity	Model	Description		Actual MAC Capacity	Internal	External
248mb	ST3283	3.5" Low Profile	12ms	235mb	$635	$695
1.2GIG	ST11200N	3.5" Half Height	10.5ms	1000mb	$1879	$1939
645mb	ST4767N	5.25" Full Ht W-R II	11.9ms	634mb	$1529	$1629
1.2GIG	ST41200N	5.25" Full Ht W-7	15ms	989mb	$1585	$1685
1.6GIG	ST41651N	5.25" Full Ht W-8	15ms	1350mb	$1989	$2089
2.1GIG	ST42100N	5.25" Full Ht W-9	12.9	1900mb	$2829	$2929
1.6GIG	ST41600N	5.25" Full Ht Elite-1	11.5ms	1307mb	$2269	$2369
2.4GIG	ST42400N	5.25" Full Ht Elite-2	11ms	2050mb	$3095	$3195
3.4GIG	ST43400N	5.25" Full Ht Elite-3	11ms	2750mb	$4329	$4429

Seagate Drives include a ONE Year Warranty.

5 YEAR WARRANTY

HEWLETT PACKARD

Unformatted Capacity	Model	Description		Actual MAC Capacity	Internal	External
234mb	C2233	3.5" Half Height	12.6ms	223mb	$749	$809
422mb	C2235	3.5" Half Height	12.6ms	402mb	$1159	$1219
1.2GIG	C2247	3.5" Half Height	12ms	1000mb	$2229	$2289
677mb	97556	5.25" Full Height	16.5ms	633mb	$1399	$1499

HP Disk Drives feature SCSI-2 embedded controller • MTBF of 150,000 hour

Call for Internal Prices

ClubMac TAPE BACKUP Systems

Capacity	Model	Description	Media	Access Time	External
155mb	Teac MT2ST/N50	Analog	CT600N	5-7 MB/s	$489
600mb	Teac MT2ST/F50	Analog	CT600F	7-10MB/s	$699
2.0GIG	ARDAT	DAT, DDS	4mm	10-15 MB/s	$1249
2.0GIG	WangDAT 1300XL	DAT, DDS	4mm	10-15 MB/s	$1329
3-5GIG	WangDAT 3200	DAT, DDS-DC	4mm	10-15 MB/s	$1549
2.0GIG	HP 35470A	DAT, DDS	4mm	10-15 MB/s	$1389
3-5GIG	HP 35480A	DAT, DDS-DC	4mm	10-15 MB/s	$1569
2.2GIG	Exabyte EXB-8200	Digital/Helical	8mm	10-15 MB/s	$1949
5.0GIG	Exabyte EXB-8500	Digital/Helical	8mm	10-15 MB/s	$2999

Includes RetroSpect v.1.3c Backup Software, One Tape and ONE Year Warranty

NEW Lower Prices

DAYSTAR DIGITAL

30 DAY MONEY BACK GUARANTEE

PowerCache (Classic, SE, LC, SE/30, II, IIx, IIcx, IIsi, IIci)

	w/o FPU	w/ FPU
16 MHz PowerCache	$399	$459
33 MHz PowerCache	$539	$659
40 MHz PowerCache	$749	$909
50 MHz PowerCache	$1079	$1319
Equalizer LC	$169	$239
PowerCache Adapter	$40	

* Cache Adapter not included

Cache Cards

FastCache IIsi	$279
FastCache IIsi with 68882	$349
FastCache IIci	$215
FastCache 040 (128K - Q700/900)	$259
FastCache 040 (128K - Q700/900/950)	$399

Expansion Boards for Mac LC & IIsi

DualPort IIsi	$165
PowerMath LC	$115
NEW! 33MHz Turbo 040	$Call

ASANTÉ Networking

MACCON+ 64K Thick/Thin or Thick/10BaseT	$159
MACCON 3 64K Thick/Thin/10BaseT (Most MACs)	$209
Friendly Net Adapter Thick or Thin or 10BaseT	$79
EN/SC10T SCSI Ethernet with 10BaseT	$249
EN/SC10TPB SCSI Ethernet with 10BaseT for PowerBooks	$309
EN/SC SCSI Ethernet w/ Thick,Thin,10BaseT	$349
EN/SCPB SCSI Ethernet w/ Thick,Thin,10BaseT for PowerBooks	$285
10THub - 12 port 10BaseT Hub / 8 port 10BaseT	$499 / $249
12 Port Smart Hub	$Call for Pricing and Options

Macintosh Memory

PowerBook 140/170		Quadra 950		Mac IIfx	
2MB Memory Module	$Call	16mb Module	$Call	1mb X 8 - 80ns	$Call
4MB Memory Module	$Call	256 VRAM	$Call	4mb X 8 - 80ns	$Call
6MB Memory Module	$Call	**Macintosh Memory**		16mb X 8 - 80ns	$Call
		1mb X 8- 80ns	$Call	**Video (Q700/900)**	
PowerBook 160/180	$Call	2mb x 8 - 80ns	$Call	256K VRAM	$Call
Duo 210/230	$Call	4mb X 8 - 80ns	$Call		
		16mb X 8 - 80ns	$Call		

NEW ITEMS!

Modems

PSI

ComStation1 (24/96/48 S/R fax modem)	$159
ComStation5 (14,400 S/R fax modem)	$515
PowerModem (24/96/48 S/R fax modem)	$135
PowerModem II (24/96/96 S/R fax modem)	$235

Global Village (for PowerBooks)

PowerPort Bronze (24/96 S/R fax modem)	$215
PowerPort Silver (96/96 S/R fax modem)	$435
PowerPort Gold (14,400 S/R fax modem)	$595
TelePort Bronze/Silver/Gold	$199 / 349 / 435
Supra FAXmodem	$349

Scanners

MICROTEK

ScanMaker II	$889
ScanMaker IIXE	$1185

EPSON

ES-600C *	$Call
ES-800C *	$Call

*Shipping with Adobe Photoshop & Scantastic



NEC

Silentwriter Model 95

$1378

- Adobe PostScript Level 2 • 6 ppm
- 300 dpi • 35 fonts • 2 MB RAM std
- Auto Interface Monitoring
- AppleTalk, Serial, Parallel Interface

"Printer of the Year 1992" BIS STRATEGIC DECISIONS



MW EDITORS' CHOICE

MultiSync 3FGx Monitor March 1992

NEC MultiSync FGMonitors

- 0.28 mm dot pitch
- Resolution up to 1152 X 870
- Comp. with Mac LC, II family, Quadras
- Incl. Mac Adapter & 2 Year Warranty

MultiSync 3FGx (15")	$629
MultiSync 4FG (15" - AccuColor)	$759
MultiSync 5FG (17" - AccuColor)	$1315
MultiSync 6FG (21" - AccuColor)	$2399
Mac FG 8X Interface	$659
Mac FG 24X Interface	$1235

NEC CD-ROMs

NEW! NEC CD-ROMs

- MultiSpin Technology (300KB data transfer rate)
- Double-Door Dust Protection
- MPC Compliance provides smooth video playback

CDR-25 Express	$429
CDR-74 Gallery	$849
CDR-74 w/ Mac I/F	$569

CD·EXPRESS

CD·GALLERY



NEW Radius Pivot
√ Multi-frequency
√ Low Emissions

radius

Monochrome Pivot $699

15" dual-orientation, anti-glare, full page display, up to 256 shades of gray

√ Multi-frequency
√ Low Emissions





Increase the processing speed of the Mac II up to 8 times, allowing a Mac II to exceed Quadra performance

Radius Displays

Color Display/21	$1895
PC DIsplay/20	$2759
PC Display/19	$2089
Color Pivot	$1289
Full Page DIsplay	$579
2-Page Display/19	$899
NEW! 2-Page Display/21E	$1335

Accelerators/Coprocessor

Radius Rocket 25i	$1199
Radius Rocket	$1599
Radius Rocket 33	$1999
RocketShare	$419
SCSI-2 Booster	$249

NEW!

Radius I/F Cards/Multimedia

VideoVision	$2009
PrecisionColor 8 I/F	$499
PrecisionColor 8X I/F	$729
PrecisionColor 8XJ I/F	$495
PrecisionColor 24X I/F	$1629
PrecisionColor 24XP I/F	$495
PrecisionColor 24XK I/F	$829
Color Pivot I/F	$505
Monochrome Pivot I/F	$249
Two Page Display I/F	$395
PowerView	$499

SUPERMAC™

Graphic Displays

SuperMatch 20•T Multimode Trinitron	$2525
SuperMatch 20" Dual Mode Trinitron	$2499
SuperMatch 20" Color	$1515
SuperMatch 17" Multimode Color	$1089
21" Platinum (Black and White)	$999
Platinum 20 Full-Page	$929

Digital Video Boards / Acceleration

Video Spigot (NuBus / IIsi / LC)	$379 / 339 / 255
VideoSpigot Pro (NuBus or IIsi)	$1095
Spigot and Sound NuBus / Pro	$489 / 1179
ThunderStorm	$845

Graphic Cards

Thunder/24	$2345
Thunder/8	$1175
Spectrum/24 Series III	$845
Spectrum/24	$755
Spectrum/24 Accelerator	$419
Spectrum/8•24 PDQ	$829
Spectrum/8 Series III	$419

Graphic Cards • 5 Year Warranty
Graphic Displays • 3 Year Warranty

RASTEROPS

Color Display Adapters

RasterOps 24XLi	$1939
PaintBoard 24 / Li	$1549 / 829
RasterOps 8XLi / 8XL	$929 / 465
RasterOps 24Mx / MxQ	$1165
RasterOps 24Sx	$619

Multimedia

RasterOps 24XLTV	$2699
MediaTime	$1549
RasterOps 24STV	$779
RasterOps VideoTime	$1165

Graphic Displays

NEW! CorrectColor/20T (2075C)	$3965
21" Color (2168)	$2799
20 Multimode Color (2085H)	$1485
20T MultiScan Trinitron (2075M)	$2479
21" Mono/Gray Scale (2110)	$999
15" Mono/GS Portrait (1510)	$505
ClearVue/SD21 (2570)	$1399
16" Sweet 16 Color (1649)	$1165

ClubMac

CALL FOR CURRENT PRICING

1-800-854-6227

Sales, Info	Tech Support	24-Hr Fax
(714)768-8130	(714)768-1490	(714)768-9354

3 Musick • Irvine • California 92718

All product information and prices are subject to change without notice. Not responsible for typographical errors.

1-800-854-6227 1-800-854-MACS 1-800-854-6227

System 7's alias feature without using System 7. Works well with custom QuicKeys-sequence macros. Uses more than 600K of RAM. Version 1.0 reviewed. Version 1.01 shipping. Requires Mac Plus or later, System 6.04 or later, 2 MB of RAM, and a hard drive. $99.95. CE Software, Inc., 1801 Industrial Cir., P.O. Box 65580, West Des Moines, IA 50265. 800-523-7638 or 515-224-1995. (June '92)

TrashMaster ⭐⭐⭐

TrashMaster is a control panel that adds menu controls and filtering to Trash emptying. Transforms Empty Trash item on the Finder's Special menu into a hierarchical menu with many options, a feature that may not be worth the trouble. Trash filtering lets you control exactly when to empty specific parts of your Trash, something that System 7 doesn't do automatically. Special Incinerate filter erases specified files when deleted by TrashMaster or by an application. Allows option of erasing files to government specs, using three overwrites of random data. Version 1.1 reviewed. Requires System 7 or later. $69.95. Utilitron, Inc., P.O. Box 811, Allen, TX 75002. 800-428-8766 or 214-727-2329. (Sept '92)

TwinIt ⭐⭐⭐⭐½

TwinIt lets your Mac write the same data to two SCSI hard-disk or cartridge drives simultaneously. Easy to use. Provides up-to-the-second backup in case one drive fails, but doesn't protect against software errors, viruses, or power interruptions. Doesn't support most tape drives. Reduces performance noticeably only with programs that access hard disks frequently. Version 1.0 reviewed. Requires two SCSI drives with identical capacities. $199. Golden Triangle Computers, Inc., 4849 Ronson Ct., San Diego, CA 92111. 800-326-1858 or 619-279-2100. (Sept '92)

Word for Word/Mac ⭐⭐⭐⭐

Word for Word/Mac is a straightforward, stand-alone, DOS/Mac file-translation application. Does good job of retaining original text formatting. Depending on your Mac hardware setup, you may need another program such as Apple File Exchange to convert PC-format files over to Mac binary format. Word for Word/Mac supports DOS-to-DOS translation as well as various graphics and spreadsheet formats. One of the program's strengths is that it tags formatting it was unable to convert. Documentation looks and reads as if it was written on a DOS machine. Version 1.2 reviewed. Version 4.2 shipping. Requires Mac Plus or later. $149.95. Software Toolworks, 60 Leveroni Ct., Novato, CA 94949. 800-234-3088 or 415-883-3000. (Mar '91)

UTILITIES/PRINTING

BulkMailer+ ⭐⭐⭐½

BulkMailer+ is a basic mail manager with many powerful sorting features. Port setup can be difficult. Can handle up to 90,000 names and addresses. Version 3.23 reviewed. Version 3.3 shipping. Requires Mac Plus or later; hard drive recommended. $350. Satori Software, 2815 Second Ave., Ste. 295, Seattle, WA 98121. 206-443-0765. (Oct '89)

DynoPage ⭐⭐⭐⭐

DynoPage is an extremely practical utility that can save you lots of paper. Supports document printing in enlarged or reduced sizes, including minipages for personal organizers and appointment books. Handles double-sided output quickly and easily. Installs as control panel. Comes with more than 50 page-template forms, but altering them requires use of ResEdit; next version of DynoPage may include a forms editor. Includes a supply of prepunched personal-organizer laser paper. Version 1.0 reviewed. Requires Mac Plus or later and a hard drive. $99.95. Portfolio Systems, Inc., 10062 Miller Ave., Ste. 201, Cupertino, CA 95014. 800-729-3966 or 408-252-0420. (Mar '92)

FastEnvelope ⭐⭐½

This envelope-printing DA has powerful features and flexibility, but bugs and quirkiness diminish its utility. Includes unlimited number of records, full font control, graphics capability, postal-bar-code creation, data export/import, and print merge. You can customize envelope sizes or use ten predefined standard formats. Version 1.03 reviewed. Version 2.1 shipping. Requires Mac Plus or later, System 6.04 or later, and a hard drive. $59.95. Vertical Solutions, P.O. Box 1150, Beaverton, OR 97075. 800-942-4008 or 503-524-7402. (Apr '91)

FastLabel ⭐⭐⭐⭐

FastLabel is a good label creator and printer. Excellent tools for designing labels. Can include graphics and icons. Prints envelopes by treating them as large labels. Weak list handling. Version 2.0 reviewed. Version 3.1 shipping. Requires Mac Plus or later, System 6.04 or later, and a hard drive. $79.95. Vertical Solutions, P.O. Box 1150, Beaverton, OR 97075. 800-942-4008 or 503-524-7402. (Oct '90)

Freedom of Press ⭐⭐⭐⭐⭐

Freedom of Press gives you PostScript-quality output on non-PostScript printers and is the best software-only PostScript clone available. The only limit to output quality is the printer's maximum resolution. Adobe Type 1 fonts and Adobe Type Manager are supported. Process is slow and creates large PostScript files, but output is nearly indistinguishable from true PostScript printer output. Background printing is possible running under MultiFinder. Some users would do just as well getting a PostScript cartridge for their printer. Version 3.0 reviewed. Version 3.01 shipping. Requires Macintosh Plus or later with 2 MB of RAM, a hard drive, and 1.5 MB of printer memory. $495. Custom Applications, Inc., 900 Technology Park Dr., Bldg. 8, Billerica, MA 01821. 800-873-4367 or 508-667-8585. (Feb '91) ★ '89 Eddy

Freedom of Press Light ⭐⭐⭐⭐⭐

Although it supports fewer printers and comes with fewer fonts than the full-fledged Freedom of Press program, this Light version also lets you print PostScript-quality output on non-PostScript printers. The only limit to output quality is your printer's maximum resolution. Adobe Type 1 fonts and Adobe Type Manager are supported. Background printing is possible running under MultiFinder. Some users would do just as well getting a PostScript cartridge for their printer, but Freedom of Press is a superb software-only PostScript clone. Version 3.0 reviewed. Version 3.03 shipping. Requires Mac Plus or later with 2 MB of RAM, a hard drive, and 1.5 MB of printer memory. $149. Custom Applications, Inc., 900 Technology Park Dr., Bldg. 8, Billerica, MA 01821. 800-873-4367 or 508-667-8585. (Feb '91)

KiwiEnvelopes! ⭐⭐⭐⭐

This DA has simple features for one-shot envelope printing, but it needs font flexibility. Features include unlimited number of records, graphics capability, and postal-bar-code creation. Envelope sizes are limited. Has on-line help. Version 3.1 reviewed. Version 3.16 shipping. Requires Macintosh Plus or later. $49.95. Kiwi Software, Inc., 6546 Pardall Rd., Santa Barbara, CA 93117. 805-685-4031. (Apr '91)

MacEnvelope ⭐⭐⭐⭐½

This combination DA/application has many powerful features for envelope printing and mail management, but it lacks font flexibility and unlimited-record capability. Features include graphics capability, postal-bar-code creation, data import/export, and print merge. You can customize envelope sizes or use 11 predefined standard formats as well as 150 label templates. Sorts by name or ZIP code. Version 5.0 reviewed. Version 5.1 shipping. Requires Macintosh Plus or later. $79.95. Synex, 692 Tenth St., Brooklyn, NY 11215. 800-447-9639 or 718-499-6293. (Apr '91)

MacEnvelope Plus ⭐⭐⭐⭐⭐

MacEnvelope Plus is one of

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

the best envelope and mailing-list programs available. Intended for small-business and group users who do substantial mailing. Can print bar codes and FIMs automatically. Sorts and reports by ZIP code or carrier routes. Does everything necessary for your mailings to qualify for the lowest bulk- and regular-mail rates. Operation is fast and very, very slick. Includes a nice DA so envelopes can be printed on the fly from within other applications. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later. $350. Synex, 692 Tenth St., Brooklyn, NY 11215. 800-447-9639 or 718-499-6293. (Aug '90)

MacPrint ★★★★

MacPrint is a printer driver that lets you print to non-PostScript HP-compatible printers. Provides screen fonts for every HP font cartridge and special Compugraphic screen fonts. Includes cable. Good manual. Check application compatibility before buying. Version 1.0 reviewed. Version 1.3 shipping. Requires Macintosh Plus or later, System 6.03 or later, a hard drive, and an HP-compatible printer. $149. Insight Development Corp., 2200 Powell St., Ste. 500, Emeryville, CA 94608. 510-652-4115. (May '91)

MergeWrite ★★★

MergeWrite is a mail-merge program for MacWrite. It also works with ASCII files. Combines names and addresses from a data file into predefined fields in a form letter. Allows simple conditional IF/THEN/ELSE statements. Version 1.1 shipping. Requires Mac Plus or later. $49.95. Software Discoveries, Inc., 137 Krawski Dr., South Windsor, CT 06074. 203-644-9225. (Dec '87)

MyAdvancedLabelDesigner ★½

MyAdvancedLabelDesigner (formerly MyAdvancedLabelMaker) is a label-management utility that offers many features but suffers greatly from its unconventional, nonintuitive interface. Learning its special method for designing and printing labels takes time, and similar utilities provide equal or better results. Version 1.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $59.95. MySoftware Company, 1259 El Camino Real, Ste. 167, Menlo Park, CA 94025. 415-325-9372. (Sept '91)

myDiskLabeler ★★★★

myDiskLabeler is an excellent label maker. Can read directories and use large or small icons. Comes with 54 precut labels. Version 1.1 reviewed. Version 3.1 shipping. Requires Macintosh Plus or later. $80. Williams & Macias, Inc., S. 3707 Godfrey Blvd., Spokane, WA 99204. 800-752-4400 or 509-458-6312. (Aug '87)

PowerPrint ★★★★

PowerPrint is a set of custom print drivers for dot-matrix, inkjet, and non-PostScript laser printers. Provides more features than Apple's ImageWriter LQ driver. Doesn't require control-panel software. Each Mac must have registered copy to use networked printer. Version 1.2 reviewed. Version 2.0 shipping. Requires Mac Plus or later and System 6.07 or later. $149. GDT Softworks, Inc., 4664 Lougheed Hwy., Ste. 188, Burnaby, British Columbia V5C 6B7 Canada. 800-663-6222 or 604-291-9121. (July '92)

PrintBar ★★★★½

PrintBar calculates and prints bar codes at varying resolutions. It supports UPC, EAN, Interleaved, 2 of 5, and Code 39. Operation is a bit clunky, but performance is fine. Output is easily transferable. Easy to use. Version 2.0 reviewed. Version 3.12 shipping. Requires Mac Plus or later. Nine volumes (for different codes), $95 to $295 each. Bear Rock Technologies, 6069 Enterprise Dr., Diamond Springs, CA 95619. 916-622-4640. (June '90)

QuickEnvelope ★★★

This DA has limited features and flexibility for envelope printing, with 1,000-record capacity. Features include full font control and print merge. You can customize envelope size or use two predefined standard formats. Without features such as graphics-importing and postal-bar-code capability, QuickEnvelope can't compete with similar envelope-printing utilities. Version 1.0 reviewed. Version 1.02 shipping. Requires Mac Plus or later. $49. GCC Technologies, Inc., 580 Winter St., Waltham, MA 02154. 800-422-7777 or 617-890-0880. (Apr '91)

QuickLetter ★★★★½

QuickLetter is a well-designed and thoughtfully implemented DA for creating letters and envelopes. Creates stationery, complete with graphics, and maintains an address book that includes salutations. Version 1.0 reviewed. Version 2.0 shipping. Requires Mac Plus or later. $49.95 direct. Working Software, Inc., P.O. Box 1844, Santa Cruz, CA 95061. 408-423-5696. (Apr '89)

SuperLaserSpool ★★★★

This handy print spooler supports a wide range of printers, including the HP DeskWriter and color devices. Compatible with many printers and applications that don't work with Apple's PrintMonitor. Excellent performance, even when managing simultaneous output to multiple printers. Installation is a snap, and use is mostly transparent. Adds a Print Preview mode to applications without one. Included Laser Queue DA manages print jobs. Has minor problems with some fax-modem software and graphics embedded in Word 5 documents. Version 2.0 reviewed. Version 3.0 shipping. Requires Macintosh Plus or later and System 4.1 or later. $149. Fifth Generation Systems, 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (Oct '92)

TScript ★★★½

TScript makes some non-PostScript laser printers PostScript-compatible. No frills. Can preview a PostScript file with any Adobe font. May suffer the jaggies if you try to rotate, apply fills, and condense or expand text strings in some fonts. Remarkably quick performance. A low-cost alternative if you're willing to suffer some severe limitations. Adequate performance with HP LaserJet printers. Version 1.2 reviewed. Version 3.2 shipping. Requires Mac Plus or later and a hard drive. $145; Basic version, $85; Deluxe version, $495. TeleTypesetting Co., 311 Harvard St., Brookline, MA 02146. 617-734-9700. (Aug '90)

TurboSpool ★★½

This spooler has a nice interface but forces you to load spooled files into the queue manually. Sometimes printing delay is unnecessarily long. Compatible with LaserWriter and MultiFinder. $69. PLI (Peripheral Land, Inc.), 47421 Bayside Pkwy., Fremont, CA 94538. 800-288-8754 or 510-657-2211. (Apr '90)

UltraScript for the Macintosh ★★★

UltraScript provides software-only PostScript emulation that lets Mac applications get the maximum quality possible from non-PostScript printers. A serious disadvantage is that Adobe Type 1 fonts must be converted into a proprietary format in order to work with UltraScript. Adobe Type Manager still works, but it doubles the hard-drive space used by fonts. Batch processing is not possible, and not all printers and film recorders are supported. Version 1.11 reviewed. Requires Macintosh Plus or later and 3 MB of RAM (hard drive recommended). $195; UltraScript Plus, $445 (includes network spooler and 43 fonts). QMS, Inc., One Magnum Pass, Mobile, AL 36618. 800-523-2696 or 205-633-4300. (Feb '91)

Utilities/Security

A.M.E. (Access Managed Environment) ★★½

This industrial-strength security system offers some of the most complete features available for the Mac, but its unforgiving approach makes it suitable only for knowledgeable users. System administrators will appreciate the Activities Log feature, which remembers any activity performed on the protected Mac. You can assign access levels

Only one printer can give you this fax.

Our goal at NEC is the complete integration *of computers and communications. The Silentwriter Model 95fx is just one of many innovative products that help us to realize this goal. For example, we not only developed the first notebook computer with a built-in phone and fax, we make satellite dishes capable of sending data worldwide.*

Once upon a time, all faxes looked the same. *Bad*. But with the Silentwriter® Model 95fx multifunction printer/fax, nothing gets lost in the transmission. Imagine PostScript™ language–quality *faxes* from your printer. It's no fairy tale. Now you can send and receive documents in all their original glory. You'll see beautiful fonts and graphics with none of the dirt and glitches, the jaggies and imperfections, that can turn a wonderful story into a tragedy. Why send a facsimile when you can send an original? Get the NEC Silentwriter Model 95fx multifunction printer/fax and live happily ever after.



The End

Actual facsimile generated from a Silentwriter Model 95fx.

POSTSCRIPT
Software From Adobe

To upgrade your existing Silentwriter Model 95 printer with fax capability (U.S. only), or for more information

And these facts.

1. A state-of-the-art 6 PPM laser printer equipped with the latest in Mac® and PC® printer software support—Adobe's PostScript™ Level 2 and HP's PCL5.

2. Send and receive faxes in either conventional or PostScript-language formats anywhere in the world.

3. Patented Sharp Edge Technology delivers 600 DPI-equivalent clarity in a 300 DPI class.

4. Ideal for shared use. Automatic interface switching supports both Macs and PCs simultaneously.

5. Under $2,349 (MSRP). Far less than you'd pay for any printer/fax multifunction combination. If you could even find a comparable product.



The Silentwriter Model 95fx Printer/Fax

Because ⬆ is the way you want to go. NEC

CIRCLE 203 ON READER SERVICE CARD.

about the Silentwriter Model 95fx, call NEC at 1-800-325-5500.

for users, and password protection is sophisticated. DES encryption is available. A.M.E. is effective but so sensitive to user error that it can irretrievably lose data. Version 1.1.3 reviewed. Version 2.0 shipping. Requires Mac Plus or later, System 6.02 to 6.08, and hard drive. $279 for a single user; $895 for 5 users; $1,495 for 10 users; site licenses available. Casady & Greene, Inc., 22734 Portola Dr., Salinas, CA 93908. 800-359-4920 or 408-484-9228. (May '91)

DiskLock ⭐⭐⭐⭐½

The easy-to-use security program DiskLock keeps the contents of your hard drive private. The important improvements in this version include the ability to do background processing, protection against the trashing of locked files and folders, and support for the U.S. Data Encryption Standard (a faster proprietary encryption is also provided). It doesn't offer customizable user levels, administrative functions, or a hierarchy of privileges, however. Like all security software, DiskLock works best for people who never forget their password. Version 2.0 reviewed. Version 2.12 shipping. Requires Macintosh Plus or later and System 4.1 or later. $189. Fifth Generation Systems, 10049 N. Reiger Rd., Baton Rouge, LA 70809. 800-873-4384 or 504-291-7221. (Mar '91)

Empower II ⭐⭐⭐⭐

Empower II is control-panel software offering a flexible, easy way to set up access privileges. Extends well beyond the capabilities of System 7's File Sharing. Provides data encryption of individual files, but can't protect applications, prevent the deleting and renaming of accessible files and folders, or provide automatic shutdown and data eradication. Good manual. Administrative controls include an activity log, disabling of floppy drives at startup or later, and protection of DAs on a person-by-person basis. Lets users maintain the privacy of their personal files. Version 4.07 reviewed. Version 4.08 shipping. Requires Macintosh Plus or later and a hard drive. $296; 10-user pack, $1,539. Magna, 332 Commercial St., San Jose, CA 95112. 408-282-0900. (May '92)

FileGuard ⭐⭐⭐⭐⭐

FileGuard is an excellent security package that operates primarily in the background. It is unique in that it can protect folders, applications, and data files, which it accomplishes by using an easily updated list of persons who have different levels of access. There is no DES encryption (a U.S. government standard), but its proprietary encryption is good. FileGuard provides support for the optional MaccessCard magnetic-identity-card reader that operates as part of the ADB circuitry. Version 2.5 reviewed. Version 2.72 shipping. Requires Macintosh Plus or later, or SE or later to use MaccessCard Reader. $249; 5-user office pack, $795; 10-user office pack, $1,295. ASD Software, Inc., 4650 Arrow Hwy., E-6, Montclair, CA 91763. 714-624-2594. (Apr '91)

FolderBolt ⭐⭐⭐⭐

FolderBolt is a straightforward, easy-to-use utility that protects the contents of individual folders instead of an entire disk volume. Allows three levels of security: password-protected, read-only, and drop-only (lets users add to a folder's contents). Can set up and manage grouped sets of folders accessible simultaneously with one password. Includes FolderBolt Administrator program that lets users or network administrators override bolted folders individually or by volume. FolderBolt Administrator can also be password-protected and provides an activity log with information about network traffic and any attempts at illegal folder access. Version 1.02 reviewed. Requires Mac Plus or later and a hard drive. $129.95. Kent Marsh Ltd., 3260 Sul Ross St., Houston, TX 77098. 800-325-3587 or 713-522-5625. (Mar '92)

Ft. Knox ⭐⭐⭐⭐

Ft. Knox is an excellent, high-level security utility. Supports password protection and two forms of encryption. Files or volumes can be "sanitized" to U.S. top-secret standards. Ideal for classified government environments or high-level corporate and research facilities. May be overkill for normal business use. Easy to use and includes good manual. Version 1.05 reviewed. Requires Macintosh Plus or later and a hard drive. $195 direct. Transfinite Systems Co., Inc., P.O. Box N, M.I.T. Branch Post Office, Cambridge, MA 02139. 617-969-9570. (June '92)

MaccessCard Reader ⭐⭐⭐⭐⭐

MaccessCard is a magnetic-identity-card reader that operates as part of the ADB circuitry and requires ASD's excellent FileGuard software. In conjunction with FileGuard, the reader prevents unauthorized access to either a Mac's entire hard disk or a specified selection of files, folders, applications, and partitions. Requires Macintosh SE or later, with FileGuard software. $349. ASD Software, Inc., 4650 Arrow Hwy., E-6, Montclair, CA 91763. 714-624-2594. (Apr '91)

MacSafe ⭐⭐⭐⭐

MacSafe is a data-file-security program that lets you put multiple files into a "safe," where you can protect them further through two types of encryption (including DES). Flexible and easy to use. Allows for installation on a hard drive. Version 1.0 reviewed. Version 2.0 shipping. Requires Macintosh Plus or later. $189.95. Kent Marsh Ltd., 3260 Sul Ross St., Houston, TX 77098. 800-325-3587 or 713-522-5625. (Mar '87)

NightWatch ⭐⭐⭐⭐

NightWatch locks up your hard drive by using a floppy startup disk that acts as a key. Type in the correct password, and access to the hard drive is allowed. Version 1.02 reviewed. Version 2.01 shipping. Requires Macintosh Plus or later and a hard drive. $159.95. Kent Marsh Ltd., 3260 Sul Ross St., Houston, TX 77098. 800-325-3587 or 713-522-5625. (Sept '88)

Rival ⭐⭐⭐⭐½

Rival is an INIT (extension) that inspects open files for known viruses. Rival checks files constantly, but delays are hardly noticeable. Also scans disks and does some file repairs. Experienced users can easily add protection against newly discovered viruses. Version 1.0 reviewed. Version 1.19 shipping. Requires System 6.03 or later. $99. Inline Design, 308 Main St., Lakeville, CT 06039. 800-453-7671 or 203-435-4995. (Sept '90)

SAM (Symantec AntiVirus for Macintosh) ⭐⭐⭐⭐⭐

SAM offers powerful, effective virus protection. An easy upgrade procedure lets registered users update SAM to fight new viruses by calling Symantec's 24-hour Virus Newsline. The INIT portion, SAM Intercept, can track and intercept up to 14 categories of Mac events, from relatively innocent operations (such as copying applications to disk) to potentially insidious code changes in files. Includes Virus Clinic, an application for batch-checking older files that may be infected. Easy to use and modify. New feature allows networked users to access single virus-definitions file on central server. Version 3.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $99. Symantec Corp., 10201 Torre Ave., Cupertino, CA 95014. 800-441-7234 or 408-253-9600. (Aug '91) ★ '89 Eddy

ultraSECURE ⭐⭐⭐⭐

ultraSECURE offers a powerful, hierarchical data-protection system. Implementation is structured and rigid, allowing users access to their own files and to those belonging to anyone below them in the hierarchy. Includes basic virus protection and good data-eradication tools that meet NSA standards. Can protect against floppy-drive access, floppy or SCSI initialization, and file- or folder-related operations (creation, deletion, renaming). Uses convenient self-installing script, a system extension, and two DAs controlling volume access and

group security levels. File-encryption methods include DES, Double DES, and ultraSECURE's own ultraCRYPT. Can use a key disk instead of passwords to provide access. Poor manual. Version 1.2 reviewed. Requires Macintosh Plus or later and a hard drive. $290. usrEZ Software, 1202 E. Pike St., Ste. 588, Seattle, WA 98122. 206-672-5387. (May '92)

Virex ⭐⭐⭐⭐½

Virex is a virus preventer, detector, and eradicator that works against known viruses. Excellent support and update history. Installation process is simple enough for novices. The new Virex AppleShare Installer (available free to customers with site licenses or ten-packs of Virex) is designed for use on an AppleShare file server. System-7.0-compatible, but features limited to balloon help. Version 3.2 reviewed. Version 3.82 shipping. Requires Macintosh Plus or later and System 4.2 or later. $99.95; 10-user pack, $599. Microcom Utilities Product Group, P.O. Box 51489, Durham, NC 27717. 919-490-1277. (Aug '91)

Word Processing

Bank Street Writer ⭐⭐⭐

Bank Street Writer succeeds both as a word processor for students and as an instructional aid for teachers using Macs in the classrooom. Page-layout module is much too cumbersome for novices and too limited for creative self-publishing. Has all the essentials for text editing and formatting. Good tools for framing and arranging text blocks and simple graphics. Includes spelling checker and thesaurus. Hypertextlike buttons link documents to text notes, sounds, or related documents and graphics. Can freeze selected text or entire files as read-only material. Version 1.02 reviewed. Requires Macintosh Plus or later, System 6.03 or later; hard drive recommended. $129.95. Scholastic Software, 2931 E. McCarty St., P.O. Box 7502, Jefferson City, MO 65102. 800-541-5513. (Nov '92)

Better Working: The Resumé Kit ⭐⭐⭐

Better Working: The Resumé Kit is a port of a popular DOS program. It adequately structures simple resumés but ultimately isn't much better than a good word processor. Has a nice manual and is a good place to start, but that may not be enough for serious job seekers. Version 1.0 shipping. $39.95. Spinnaker Software Corp., 201 Broadway, Cambridge, MA 02139. (800) 826-0706 or (617) 494-1200. (July '90)

Bookends Mac II ⭐⭐⭐½

Bookends Mac II is a set of HyperCard stacks that provides bibliographic-database management in conjunction with a word processor. Creates a formatted bibliography from citations in a text document. Lacks flexibility in editing and use of formatting styles. Alerts users to unmatched or multiple-matched references. Can save completed bibliography as an RTF text file (containing font and style variations) usable by most word processors. Offers fast but limited find and select capabilities. Version 2.0 reviewed. Version 2.1 shipping. Requires Macintosh Plus or later with 2 MB of RAM, HyperCard 2.1, and a hard drive. $129.95. Sensible Software, Inc., 20200 E. Nine Mile Rd., Ste. 150, St. Clair Shores, MI 48080. 800-394-4669 or 313-774-7215. (Sept '91)

Correct Letters ⭐⭐⭐½

Correct Letters is a good source of model business letters. Final writing can be done inside program or with separate word-processing application. Good interface. Needs more categories for letter searching. Version 1.0 reviewed. Requires Mac Plus or later, System 5.0 or later, and a hard drive. $49. WordStar International, Inc., 201 Alameda del Prado, Novato, CA 94949. 800-523-3520 or 415-382-8000. (July '92)

Correct Writing ⭐⭐⭐⭐

Correct Writing provides useful information on writing form, usage, and style. Can be used as a DA. Good interface and comprehensive index. Needs to cover more subjects and should include better cross-referencing. Version 1.0 reviewed. Requires Mac Plus or later, System 5.0 or later, and a hard drive. $49. WordStar International, Inc., 201 Alameda del Prado, Novato, CA 94949. 800-523-3520 or 415-382-8000. (July '92)

DocuComp ⭐⭐⭐⭐½

DocuComp is a utility that lets you compare two versions of a word-processing document. Inserted text in the newer document is shown with underlining, and moved text appears in boldface. Older document shows deleted and moved text with strikeover characters. An excellent reporting feature details all revisions made to a document. A definite winner, DocuComp supports popular word-processing applications such as Microsoft Word. Version 1.5 reviewed. Version 1.0 (DocuComp II) shipping. Requires Mac Plus or later and System 6.03 or later; hard drive recommended. $159.95; DocuComp II, $179.95. Advanced Software, Inc., 1095 E. Duane Ave., Ste. 103, Sunnyvale, CA 94086. 800-346-5392 or 408-733-0745. (Feb '91)

EndNote Plus ⭐⭐⭐⭐½

EndNote Plus provides excellent bibliographic-database management in conjunction with a word processor. Allows for formatted in-text citations to be pasted directly into a word-processing document and then creates a bibliography from the citations. Use of editable formatting styles allows global changes to all citations and the bibliography. Includes predefined reference types and publication styles for most common bibliographic formats. Compatible with Word, WordPerfect, WriteNow, MacWrite, and ASCII text documents. Runs as an application or as a DA. Offers fast find and sort capabilities. Version 1.0 reviewed. Version 1.21 shipping. Requires Mac Plus or later and a hard drive. $249. Niles & Associates, Inc., 2000 Hearst St., Ste. 200, Berkeley, CA 94709. 510-649-8176. (Sept '91)

Expressionist ⭐⭐⭐

Expressionist is a sophisticated mathematical equation editor that's extremely customizable and offers some unique tools. Works as a DA and an application. Steep learning curve. Handles basic mathematical formatting such as integral input, summations, set-theory symbols, matrices, Greek letters, trigonometric functions, delimiters, and a wide variety of special symbols. Supports PICT and EPS formats for exporting, or you can copy equations to the Clipboard. Poor documentation. Version 3.0 reviewed. Requires Macintosh Plus or later and System 6.03 or later. $199.95. Prescience Corp., 939 Howard St., San Francisco, CA 94103. 800-827-6284 or 415-543-2252. (Dec '92)

FullWrite Professional ⭐⭐

Stable and easier to use than previous versions, FullWrite Professional combines outlining and word-processing with page-layout and drawing capabilities, but it lacks some professional features. The program (originally from Ashton-Tate) can import documents created in some versions of Word, MacWrite, WordPerfect (for PCs or Macs), Multimate, and Advantage. Many of these conversions are made via the Word for Word program. Also included is Tycho Table Maker, which creates tables that are suitable for pasting into (but not editing in) FullWrite Professional. Product support uncertain. Version 1.5 reviewed. Requires Macintosh Plus or later with 2 MB of RAM and hard drive. $249. Borland International, Inc., 1800 Green Hills Rd., Scotts Valley, CA 95066. 800-331-0877 or 408-438-5300. (Apr '91)

Hot Keys (MacWrite II version) ⭐⭐⭐½

Hot Keys is a set of MacroMaker macros for MacWrite II. Versions for Works and PageMaker are also available. Includes utility macro software and a keyboard overlay. Has many useful macros,

including some for the Finder. Includes MacroMaker. Version 1.0 shipping. Requires System 6.03 or later and extended keyboard. Each version, $44.95. K.I.S.S. (Keep It Simple Software), 324 Fuller, Ste. C-3, Helena, MT 59601. (406) 442-3559. (Jan '90)

Instant Update ⭐⭐⭐⭐

Instant Update scores highly as both a word processor and a networkable groupware application. Allows multiple users to collaborate simultaneously on text documents. Users work locally on live copies of a master document stored on a server, which automatically updates all users. Provides intuitive interface, especially for those experienced with electronic-mail systems such as QuickMail. Reliably prevents conflicts when more than one user tries to alter the same paragraph, but needs improved system for tracking changes and locking portions of documents. Supports Claris XTND filters for exporting or importing formatted text from other applications. Documents can include graphics and tables. Version 1.0 reviewed. Requires AppleTalk network and AppleShare server. 2-user pack, $495; 5-user pack, $995; volume discounts and site licenses available. ON Technology, Inc., 155 Second St., Cambridge, MA 02141. 617-876-0900. (Jan '92)

Last Resort ⭐⭐⭐½

Last Resort is an INIT and control panel that, when all else has failed, can recover your most recent work on text files. As you work in an application, Last Resort transparently captures all your keystrokes and saves them as text files in the System Folder. As long as you remember to clean out these files occasionally, this utility is trouble-free and potentially a godsend. Provides Pause mode to prevent capture of passwords or other confidential information. Version 1.0 reviewed. Requires System 6.03 or later and a hard drive. $49.95 direct. Working Software Inc., P.O. Box 1844, Santa Cruz, CA 95061. 408-423-5696. (Sept '91)

Letter Writer Plus ⭐⭐⭐½

Letter Writer Plus is a DA for creating correspondence on the fly. It can use Address Book Plus files as well as text and comma- or tab-delimited files. The interface of this large DA has some rough edges. Excellent envelope printer and mail-merge facility. Good text handling. Version 1.0 reviewed. Version 1.02 shipping. Requires Mac Plus or later and System 6.03 or later. $89.95. Power Up Software Corp., 2929 Campus Dr., San Mateo, CA 94403. 800-851-2917 or 415-345-5900. (May '90)

LetterWorks ⭐⭐⭐

LetterWorks is a book of 401 sample business letters. Letters come in text format on disk, so any word-processing program can open them. Version 1.0 reviewed. Requires Macintosh Plus or later. $79.95. Round Lake Publishing, Inc., 31 Bailey Ave., Ridgefield, CT 06877. 203-438-5255. (Mar '90)

MacWrite II ⭐⭐⭐

MacWrite II offers useful word-processing features along with an excellent interface. Has search-and-replace, multiple-column, and mail-merge functions. Includes interactive spelling checker. Supports footnotes but not style sheets. Weak graphics and page-layout capabilities. With its open hooks for PC and Mac file translators, a good choice for mixed environments. Version 1.1v3 reviewed. Requires Macintosh Plus or later; hard drive recommended. $129. Claris Corp., 5201 Patrick Henry Dr., Santa Clara, CA 95052. 408-727-8227. (Sept '92) ★ '85 Eddy

MarkUp ⭐⭐½

MarkUp is a multiuser editing and review tool that imports documents from many Mac applications. Poor performance. Inconsistent and time-consuming interface. Offers excellent security and organizational functions. Version 1.01 reviewed. Version 2.0 shipping. Requires Mac Plus or later and System 6.03 or later. $195. Mainstay, 5311-B Derry Ave., Agoura Hills, CA 91301. 818-991-6540. (Mar '90)

MasterWord ⭐⭐⭐⭐

This handy collection of enhancements for Microsoft Word is elegant, well designed, and fun to use. Easy installation. Adds many new commands to Word menus. Powerful CustomBar floating palette provides many buttons that activate predefined commands or can be user-customized. Pattern-Matching command performs complex search-and-replace GREP operations in text. Excellent support for envelope printing and table formatting. Simplifies creation of footnotes and fractions. Has illustrated on-line help with hypertext index capability. Includes three DAs: a calculator for complex math equations; an electronic artist's proportion wheel; and a GREP file finder. Bundled with Fish! screen saver (Bogus Software). Version 1.0 reviewed. Requires Word 5. $99.95. Alki Software Corp., 219 First Ave. N., Ste. 410, Seattle, WA 98109. 800-669-9673 or 206-286-2600. (Dec '92)

MathType ⭐⭐⭐⭐

MathType is an elegant, easy-to-use equation editor that handles basic mathematical formatting: integral input, summations, set-theory symbols, matrices, Greek letters, trigonometric functions, delimiters, and a wide variety of special symbols. Limited options for customization. Supports PICT and EPS formats for exporting, or you can copy equations to the Clipboard. Good documentation. Version 3.0 reviewed. Requires Mac Plus or later and System 6.03 or later. $199. Design Science, Inc., 4028 Broadway, Long Beach, CA 90803. 800-827-0685 or 310-433-0685. (Dec '92)

MathWriter ⭐⭐½

MathWriter allows direct, WYSIWYG editing of mathematical equations embedded within its text documents. Includes basic features for general word processing. Convenient switching between subscript and superscript modes. Slow, cumbersome interface requires deleting and starting over when making simple changes to equations. Can lose information and formatting when cutting and pasting data. Version 2.0 reviewed. Professional version requires 2 MB of RAM. Professional version, $395; educator version, $132; student version, $99.95. Brooks/Cole Publishing Co., 511 Forest Lodge Rd., Pacific Grove, CA 93950. 408-373-0728. (Nov '91)

miniWriter ⭐⭐⭐½

miniWriter is a word-processing DA that has a slick feel and is easy to use. Features include smart (printer's) quotes, a Find function that works well, and the option to set the typeface and size for the whole document but not for individual words. Designed for dot-matrix printers, it prints very well on laser and inkjet printers too. Version 1.6 reviewed. Version 1.73 shipping. Shareware, $12. Maitreya Design, P.O. Box 12085, Eugene, OR 97440. 503-342-2834. (Oct '90)

Nisus ⭐⭐⭐

This high-end word processor has an intuitive design and is easy to learn, but its range of menu options can be intimidating. Good for technically proficient users who need extensive control over long documents. Graphics handling has been greatly improved and now includes Page Graphics, a surprisingly powerful system with basic DTP functions. Extensive search-and-replace and macro capabilities. File size is limited primarily by the Mac's available RAM. Supports multiple columns, footnotes, and style sheets. Has glossary, spelling checker, and good indexing. Version 3.06 reviewed. Requires Mac Plus or later; 2 MB of available RAM and a hard drive recommended. $395. Nisus Software, Inc., P.O. Box 1300, 107 S. Cedros, Solana Beach, CA 92075. 800-922-2993 or 619-481-1477. (Sept '92)

QUED/M ⭐⭐⭐½

QUED/M is an excellent DA text editor. Saves documents in a form readable by most computers and printers. Doesn't support graphics or

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

multiple fonts. Programming language allows database creation. Can build complex search-and-replace patterns. Macros feature lets it function as appointment book or text database. A new version is planned for mid-1992 release. Version 2.07 reviewed. Version 2.09 shipping. Requires Mac 512Ke or later. $119. Nisus Software, Inc., P.O. Box 1300, 107 S. Cedros, Solana Beach, CA 92075. 800-922-2993 or 619-481-1477. (Feb '90)

ResumExpert ⭐⭐⭐½

ResumExpert is a set of resumé templates with a superb manual. Requires Mac Plus or later, Microsoft Word, MacWrite, or WriteNow. $95. A Lasting Impression, 49 Thornberry Rd., Winchester, MA 01890. 617-721-2037. (Oct '89)

Sonar Bookends ⭐⭐⭐

Sonar Bookends is designed to create indexes for long documents. Has some interface flaws and lacks editing tools. Provides a variety of Boolean selection options for creating phrase lists. Doesn't require special indexing characters or text-marking procedures. A good choice if your word processor lacks built-in indexing. Version 2.2 reviewed. Version 3.0 shipping. $129.95. Virginia Systems, Inc., 5509 W. Bay Ct., Midlothian, VA 23112. 804-739-3200. (Dec '91)

Stylist ⭐⭐⭐

Stylist is a utility that deciphers and fully describes formatting style sheets in Microsoft Word. Although you can't alter Word style sheets from within Stylist, you can dissect style sheets created by other Word users. A set of useful predesigned style sheets and a supplementary electronic dictionary of computer terms (to use with Word's spelling checker) is included. Version 1.0 reviewed. Requires Macintosh Plus or later, System 6.05 or later, and Word 4.0 or later. $79.95. SNA, Inc., P.O. Box 3662, Princeton, NJ 08543. 800-628-6442 or 609-799-9605. (Feb '91)

Taste ⭐⭐⭐½

This midrange word processor provides excellent color drawing tools and simple database functions. Graphics features include Bézier curves, color gradient fills, transparent editing while viewing the surrounding text, and automatic text wrap inside or outside graphic borders. Database features are oriented toward name-and-address management, and mail-merge capability is well implemented. Imports and exports most popular word-processing formats. Supports footnotes, multiple columns, and style sheets. Includes spelling checker. Lacks advanced features but easy to use. Version 1.02c reviewed. Requires Macintosh Plus or later with 2 MB of RAM, System 6.03 or later, and a hard drive. $149. DeltaPoint, Inc., 2 Harris Court, Ste. B-1, Monterey, CA 93940. 800-367-4334 or 408-648-4000. (Sept '92)

Vantage ⭐⭐⭐

Vantage is a text-editor DA and the commercial version of the shareware program McSink. Changes case; counts the number of lines, words, sentences, or paragraphs in a selection; and searches and replaces on character strings (including invisibles). Supports macros and external commands written in Pascal. Includes a spelling checker. Version 1.12 reviewed. Version 1.51 shipping. Requires Macintosh 512Ke or later. $99.95. Baseline Publishing, Inc., 1770 Moriah Woods Blvd., Ste. 14, Memphis, TN 38117. 800-926-9677 or 901-682-9676. (July '89)

Word ⭐⭐⭐⭐

Microsoft Word has a huge list of useful features, including simplified control of style sheets, outlining, and type fonts. Includes a Ribbon bar (above the ruler) that controls a drawing module, point-and-click character formatting, and the arrangement of text columns. Also includes sophisticated new Find File tool for complex searches through multiple documents. Table command lets you create multicolumn tables of text and graphics easily. Excellent speed. New version's interface is significantly more intuitive. Has hot links to Excel and Microsoft Mail. Includes enough basic DTP capabilities to format almost any document. Version 5.0 reviewed. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $495. Microsoft Corp., One Microsoft Way, Redmond, WA 98052. 800-426-9400 or 206-882-8080. (Sept '92) ★ '89 Eddy

Word Wrapper ⭐⭐⭐

Word Wrapper is a useful program that wraps or breaks text files to a user-specified length so they can be sent or received by modem. Comes as an application and as a DA. Version 2.0 reviewed. Version 4.1 shipping. Requires Mac Plus or later. $39.95 direct. Open Designs, Inc., 1627 Lombard St., San Francisco, CA 94123. 415-929-0924. (Nov '89)

WordMaker ⭐⭐½

WordMaker first appeared as an Amiga word processor called ProWrite. This inexpensive, low-key program has an interface similar to the original MacWrite's. Supports up to ten open documents, imported color graphics, and mail-merge but has limited features and import capabilities. Good manual. If you share documents with a variety of other Mac users, you might prefer Word, MacWrite II, or WriteNow. Version 1.01 reviewed. Requires Mac 512Ke or later and System 4.1 or later. $124.95. New Horizons Software, Inc., 206 Wild Basin Rd., #109, Austin, TX 78746. 512-328-6650. (Jan '91)

WordPerfect ⭐⭐⭐½

This substantially improved version of WordPerfect is a good choice for offices needing PC compatibility. Good internal file-management system, graphics manipulation, and macro-maker. WordPerfect excels at multiple, varied-width columns and basic page-layout functions. Limited typographic controls. Supports footnotes. Use of style sheets and mail-merge feature is awkward. Includes spelling checker but no glossary. Version 2.1 reviewed. Requires Mac Plus or later, System 6.05 or later, and a hard drive. $495. WordPerfect Corp., 1555 N. Technology Way, Orem, UT 84057. 800-451-5151 or 801-225-5000. (Sept '92)

WriteNow ⭐⭐⭐

This speedy, compact word processor comes bundled with Grammatik Mac 2.0 (a 1.4-million-word thesaurus) and templates for Avery mailing labels. Easy to learn and use. Superbly designed style sheets. Allows multiple headers and footers. Weak graphics and page-layout functions. Doesn't support search attributes or endnotes. Version 3.0 reviewed. Requires Mac Plus or later and System 4.2 or later; hard drive recommended. $249. T/Maker Co., 1390 Villa St., Mountain View, CA 94041. 415-962-0195. (Sept '92) ★ '86, '88 Eddy

Writer's Dream Tools ⭐⭐⭐⭐⭐

Writer's Dream Tools is a set of five highly informative HyperCard stacks. The Clichés and Catchphrases stack is fascinating. There's also a Slang stack plus Events Day-by-Day, The Stack of Decades, and the Stack of Lists. Allows wildcard searches. Poorly implemented interface. Version 1.0 reviewed. Requires HyperCard 2.1 (included) and a hard drive. Five-stack set, $149. Heizer Software, P.O. Box 232019, Pleasant Hill, CA 94523. 800-888-7667 or 510-943-7667. (July '92)

Word Processing/OCR

AccuText ⭐⭐⭐⭐

AccuText is an automatic, omnifont OCR program built on several expert systems that combine shape and context analysis. Can read poorly copied, multipage documents. Has preview window for manually selecting and arranging blocks of text to recognize. Good page-format preservation. No built-in editor for viewing recognized text before saving to a file. Version 1.1 reviewed. Version 3.0 shipping. Requires accelerated Mac SE or higher with 4 MB of RAM, System 6.03 or later, and a hard drive. $995. Xerox Imaging Systems, Inc., 9 Centennial Dr.,

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

Peabody, MA 01960. 800-248-6550 or 508-977-2000. (July '90)

CDP 9000/TopScan for the Macintosh ⭐⭐⭐⭐½

The CDP 9000/Top Scan consists of the CDP 9000 (a large scanner that connects to your Mac with a SCSI cable) and TopScan software, which installs on your hard disk. Recognition processing is blazingly fast and highly accurate. Attractive Mac interface, including a window that previews the current page. Version CDP 9000 reviewed. Version MM2400/TopScan-Plus shipping. Requires Macintosh Plus or later, System 6.05 or later, 4 MB of RAM, and a hard drive. Scanner and software, $34,495. Calera Recognition Systems, 475 Potrero Ave., Sunnyvale, CA 94086. 800-422-5372 or 408-720-8300. (Nov '90)

OmniPage Direct ⭐⭐⭐⭐½

This easy-to-use OCR program appears as an Apple-menu item and scans text directly into any open application that supports the standard Paste keystroke combination Command-V. Reliable and fast, even with most dot-matrix text. Lacks spelling checker, deferred scanning, a graphics editor, and the ability to learn new characters or symbols. Handles variations in brightness, contrast, page orientation, and screened tints. Works with many scanners. Version 1.0 reviewed. Requires Macintosh II series or higher, System 7.0 or later, 4 MB of RAM, and a hard drive. $595 ($300 when purchased with HP ScanJet IIp or Apple OneScanner). Caere Corp., 100 Cooper Ct., Los Gatos, CA 95030. 800-535-7226 or 408-395-7000. (Nov '92)

OmniPage Professional ⭐⭐⭐⭐½

OmniPage Professional is an automatic, omnifont OCR program. Works best on complex magazine pages. Strict adherence to shape analysis avoids most substitution errors. Fast and accurate on most pages. Supports a variety of scanners, languages, and output files. Allows designation of multiple zones for scanning and text recognition. Includes integrated spelling checker and module for dot-matrix text analysis. Supports deferred batch processing and saves training files for later work on pages with difficult typefaces or special characters. Comes with Graphic Editor program for processing gray-scale images and scanned graphics. Supports AccuPage contrast-control technology available in some Hewlett-Packard scanners. Version 2.0 Pro reviewed. Requires Macintosh II series or higher with 5 MB of RAM, System 7.0 or later, and a hard drive. $995. Caere Corp., 100 Cooper Ct., Los Gatos, CA 95030. 800-535-7226 or 408-395-7000. (June '92) ★ '89 Eddy

OmniProof ⭐⭐⭐½

OmniProof is a document-comparison program that compares any two versions of a file and gives a detailed report. Shows where text has been moved, deleted, or changed. Can also print document with revision bars to show editing. Sold as a companion to OmniPage but is really a separate program. Version 1.0 reviewed. Requires Mac Plus or later. $150. Caere Corp., 100 Cooper Ct., Los Gatos, CA 95030. 800-535-7226 or 408-395-7000. (Sept '90)

Read-It! O.C.R. Pro ⭐⭐⭐½

Read-It! O.C.R. Pro is an affordable, capable OCR package that won't set any speed records. Omnifont capability recognizes most common typefaces and is available in Automatic mode. Recognizes multiple columns, italics, and some foreign characters but not underlined text. If your Mac is low on RAM, the program allows for slower Trainable mode, which may provide adequate speed and still adapts well to most foreign-language or special fonts. Provides no visual feedback to inform users of recognition problems as OCR progresses. Supports hand-held scanners. Version 3.0 reviewed. Version 4.0 shipping. Requires Mac Plus or later with 4 MB of RAM, a hard drive, and a flatbed scanner. $595. Olduvai Corp., 7520 Red Rd., Ste. A, South Miami, FL 33143. 800-822-0772 or 305-665-4665. (Mar '92)

ReadRight for Macintosh ⭐⭐⭐½

ReadRight is an affordable, capable OCR package that won't set any speed records. Provides accurate text recognition even of poor-quality material. Has some advanced features such as template support and page-decomposition tools. Provides Error Check window to inform users of recognition problems. Doesn't support hand-held scanners. Version 1.0 reviewed. Requires Mac SE or later with 5 MB of RAM, a hard drive, and a flatbed scanner. $495. OCR Systems, 1800 Byberry Rd., Ste. 1405, Huntingdon Valley, PA 19006. 215-938-7460. (Mar '92)

TextPert ⭐⭐⭐½

TextPert is a trainable OCR package with acceptable accuracy. Needs to learn fonts. Supports more than 30 languages although in roman fonts only. Directly supports popular scanners. Version 3.0 reviewed. Version 3.5 shipping. Requires Mac Plus or later, high-resolution (minimum 200-dpi) scanner, and hard drive. $695. CTA, Inc., 25 Science Park, New Haven, CT 06511. 800-252-1442. (Oct '89)

TypeReader ⭐⭐⭐⭐

This powerful new OCR package is easy to use, accurate, and adapts well to a variety of type fonts and dot-matrix input. Excellent interface with almost no bugs. Custom settings can be saved for future use on similar documents. Lacks trainability features found in other high-end OCR packages. Can read scanned TIFF or PICT files, as well as image files received via fax. Has good controls for selective text recognition on complex pages. Graphics must be processed separately from text. Saves documents in many formats, including TIFF, PICT, Excel, Word, RTF, WordPerfect, WriteNow, MacWrite, and ASCII text. Supports a variety of scanners. Weak documentation. Version 1.0 reviewed. Requires Macintosh II series or higher, 5 MB of RAM, System 6.05 or later, and a hard drive. $695. ExperVision, Inc., 3590 N. First St., San Jose, CA 95134. 800-732-3897 or 408-428-9444. (Dec '92)

WordScan Plus ⭐⭐⭐⭐½

WordScan Plus is a powerful OCR package that, despite its Windows heritage, adheres well to Mac software standards. Easy to use but also very accurate and easily adapted to a variety of input. Can handle scanned TIFF, EPS, or PICT files, as well as image files received via fax. Handles graphics and complex page formats well, and Preview mode lets you designate what to scan or ignore. Good automation features will endear this program to DTP service bureaus. Allows deferred batch processing of multiple scanned images. Supports a variety of scanners and automatic document feeders. Version 1.0 reviewed. Requires Mac Plus or later, System 6.05 or later, 4 MB of RAM, and a hard drive. $599. Calera Recognition Systems, 475 Potrero Ave., Sunnyvale, CA 94086. 800-422-5372 or 408-720-8300. (Feb '92) ★ '91 Eddy

WORD PROCESSING/ SPELLING & GRAMMAR CHECKERS

American Heritage Electronic Dictionary ⭐⭐⭐½

American Heritage Electronic Dictionary is a DA that accesses 116,000 entries from the standard office edition of the *American Heritage Dictionary*. Accurate and useful, but its clumsy interface doesn't integrate well with other applications. Also includes the complete Roget's II Electronic Thesaurus and — for cryptic-crossword-puzzle fans — an anagram creator. Has powerful search features, on-line help, and a basic writer's guide. Version 1.0 reviewed. Requires Mac Plus or later, System 6.03 or later, and a hard drive. $99. WordStar International, Inc., 201 Alameda

MICE RATINGS ⭐ ⭐½ ⭐⭐ ⭐⭐½ ⭐⭐⭐ ⭐⭐⭐½ ⭐⭐⭐⭐ ⭐⭐⭐⭐½ ⭐⭐⭐⭐⭐

del Prado, Novato, CA 94949. 800-523-3520 or 415-382-8000. (Dec '92)

Correct Grammar ⚡⚡⚡⚡

Correct Grammar is an excellent Mac grammar checker with a high error-detection rate. This rule-based application handles a wide variety of input. The interface is good, but some dialog-box type is too small. Customization is easy and necessary. Version 2.0 reviewed. Version 3.01 shipping. Requires Mac Plus or later, System 5.0 or later, and a hard drive. $99. WordStar International, Inc., 201 Alameda del Prado, Novato, CA 94949. 800-523-3520 or 415-382-8000. (Sept '91)

Editorial Advisor ⚡⚡½

Editorial Advisor is a HyperCard stack designed as a grammar handbook. It has absolutely no interactive functionality with any other documents; it is strictly for searching and reading. Using it isn't much more convenient than using a book, and there are no sounds or animation to emphasize important information. The grammatical advice offered is generally sound. Planned new version will be stand-alone application. Version 1.0 reviewed. Requires HyperCard. $149.95. Petroglyph, Inc., 118 King St., Ste. 545, San Francisco, CA 94107. 415-979-0588. (Mar '91)

Grammatik Mac ⚡⚡⚡½

Grammatik Mac offers good grammar checking and an interface considerably improved over previous versions. Customization of error-checking rules and interface is easy. Creates a copy of a document, with errors marked and diagnosed; marked document is then corrected in a word-processing program before rechecking in Grammatik Mac. Version 2.0 reviewed. Requires Macintosh Plus or later. $99. Reference Software International, 330 Townsend St., San Francisco, CA 94107. 800-872-9933 or 415-541-0222. (Sept '91)

Inside Information ⚡⚡½

Inside Information is a "hierarchical dictionary" that provides large categories of words you can search through in almost the same way as you do a thesaurus. But it lets you explore subjects, much like a library's traditional card catalog does. It has three search views: outline (with expandable/collapsible headings), the tree view, and the more intuitive graphic view. A Reverse Dictionary function lets you search for words according to your definition. This feature, as does the overall utility, needs to be refined and expanded. Version 1.0 reviewed. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $119. Microlytics, Inc., Two Tobey Village Office Park, Pittsford, NY 14534. 800-828-6293 or 716-248-9150. (Feb '91)

Lookup ⚡⚡⚡⚡

Lookup is an interactive, single-word spelling checker DA. Uses the 93,000-word Spellswell dictionary as well as specialized dictionaries. Checks any word on the fly. Fast. Version 2.0 reviewed. Version 2.21 shipping. Requires Macintosh Plus or later. $39.95 direct. Working Software, Inc., P.O. Box 1844, Santa Cruz, CA 95061. 408-423-5696. (Feb '90)

RightWriter ⚡⚡½

This easy-to-use grammar checker has strong grammar-checking abilities but flawed presentation features. No spelling checker. Works well with MultiFinder and is highly customizable. Works in batch mode only and requires frequent reference to manual. Compatible with MacWrite II; all versions of MacWrite; Word 3.0 and 4.0; WordPerfect 1.0 to 1.0.4; WriteNow 1.07, 2.0, and 2.2; and all text editors. Version 3.1 reviewed. Version 5 shipping. Requires Macintosh Plus or later and a hard drive. $99.95. QUE Software, 11711 N. College Ave., Carmel, IN 46032. 800-992-0244 or 317-573-2500. (Sept '91)

Sensible Grammar ⚡⚡⚡½

Sensible Grammar is a useful proofreading program with above-average grammar-checking abilities. Simple operation uses easy rule editing. Allows interactive- or batch-mode operation. Lacks spelling checker and style templates. Version 1.6.2 reviewed. Version 2.1 shipping. Requires Mac Plus or later and System 5.0 or later. $99.95. Sensible Software, Inc., 20200 E. Nine Mile Rd., Ste. 150, St. Clair Shores, MI 48080. 800-394-4669 or 313-774-7215. (Sept '91)

Spelling Coach Professional ⚡⚡⚡½

Spelling Coach Professional is a good, powerful spelling checker. New features include a much improved control panel, clearer dialog boxes, greater flexibility in keyboard-command-equivalent assignments, and Deneba's Big-Thesaurus. Coach can check spelling in batches or interactively. Main drawback is that it takes time and effort to learn. Version 3.0 reviewed. Version 4.0 shipping. Requires Mac Plus or later, System 6.07 or later, and a hard drive. $199. Deneba Software, 7400 S.W. 87th Ave., Miami, FL 33173. 305-596-5644. (May '90)

Spellswell ⚡⚡⚡⚡

Spellswell is a stand-alone batch spelling checker. Also checks for punctuation and other errors. Good dictionary, thorough checking, and simple interface but weak guessing. Excellent performance. Version 2.0f reviewed. Version 2.2L shipping. Requires Macintosh Plus or later. $39.95 direct. Working Software, Inc., P.O. Box 1844, Santa Cruz, CA 95061. 408-423-5696. (Sept '88) ★ '86 Eddy

TechWords ⚡⚡⚡½

TechWords is a set of seven supplementary dictionaries for use with Microsoft Word. The dictionaries cover scientific areas such as chemistry, physics, life sciences, and computer technology. Word correctly identifies terms contained in these supplementary dictionaries, but such words aren't listed as alternatives when you find incorrect words, using Word's spelling checker. Version 1.0 reviewed. Version 2.1 shipping. $79. Geocomp, 66 Commonwealth Ave., Concord, MA 01742. 508-369-8304. (Feb '91)

Thunder 7 ⚡⚡⚡⚡½

Thunder 7 is a powerful upgrade of Thunder!, the venerable and popular spelling checker. Now an extension and control panel, Thunder 7 launches at startup. Users select the dictionaries and applications with which it should run. The program operates interactively and checks for spelling, punctuation, capitalization, and double-word errors. Includes application-specific compatibility modules to retain character formatting. Editable glossary. Good use of color. Installation is complicated. Version 1.06 reviewed. Version 1.1 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $99.95. Baseline Publishing, Inc., 1770 Moriah Woods Blvd., Ste. 14, Memphis, TN 38117. 800-926-9677 or 901-682-9676. (July '92) ★ '86 Eddy

Word Finder Plus ⚡⚡⚡

Word Finder is an electronic thesaurus that won't replace your trusty Roget's but is useful for checking synonyms on the fly. Version 2.0 reviewed. Version 4.02 shipping. Requires Macintosh Plus or later, System 6.03 or later, and a hard drive. $69.96. Microlytics, Inc., Two Tobey Village Office Park, Pittsford, NY 14534. 800-828-6293 or 716-248-9150. (Feb '90)

Word Foreign-Language Dictionaries ⚡⚡⚡⚡

These electronic dictionaries are for use with Microsoft Word 4.0: British (as opposed to U.S. English), French, Spanish, German, Italian, Swedish, and Dutch. Each dictionary acts as a replacement for the standard U.S. English dictionary, so you can use only one dictionary at a time. Without trying to include every word in each available foreign language, these dictionaries can catch almost any misspelling, incorrect placement of tildes, and even incorrect accent marks. Version 3.0 reviewed. Version 5.0 "Foreign Proofing Tools" shipping. Requires Microsoft Word 5.0. $99.95 each (or $89.95 direct). Alki Software Corp., 219 First Ave. N., Ste. 410, Seattle, WA 98109. 800-669-9673 or 206-286-2600. (Feb '91)

MICE RATINGS ⚡ ⚡½ ⚡⚡ ⚡⚡½ ⚡⚡⚡ ⚡⚡⚡½ ⚡⚡⚡⚡ ⚡⚡⚡⚡½ ⚡⚡⚡⚡⚡

WARNING...buying the wrong personal or small business finance software can be hazardous to your net worth.

	CheckWriter 4/0®	Quicken®	MacMoney®	MYM®
PRICES	$79	$69	$120	$79.95
ACCOUNT SPECIFICATIONS				
number of accounts available	unl.	unl.	250	unl.
auto transfer between accounts	✔			
paperless funds transactions	✔	✔	✔	✔
budget splits on main screen	✔			
uncleared check report	✔	✔	✔	✔
automatic service/interest charges	✔			
automatic check numbering	✔		✔	
ACCOUNT TYPES				
checking accounts	✔	✔	✔	✔
savings accounts	✔	✔	✔	✔
credit card accounts	✔	✔	✔	✔
loan accounts w/auto pmt. deductions	✔	✔		✔
asset accounts	✔	✔	✔	✔
liability accounts	✔	✔	✔	✔
ACCOUNT REGISTERS WILL SHOW				
only cleared checks	✔			
checks or deposits by date or range	✔			
checks or deposits by payee	✔			
checks or deposits by memo	✔			
checks or deposits by amount or range	✔			
checks or deposits by trans. number	✔			
above items as a report only	✔	✔	✔	✔
ADDRESS DATABASE				
number of entries	32M	none	250	none
prints on envelopes and labels	✔			
configures multiple addresses	✔			
prints return address only	✔			
supports address import & export	✔			
BUDGETING FOR CATEGORIES				
non-date budget	✔	✔		
monthly	✔	✔	✔	✔
bi-monthly	✔	✔		
yearly	✔	✔		
AUTOMATIC WARNINGS				
bills due reminder	✔	✔	✔	✔
deposits due reminder	✔	✔		✔
over-budget reminder	✔	✔		✔
aged receivables reminder	✔	✔		✔

	CheckWriter 4/0®	Quicken®	MacMoney®	MYM®
CHECK PRINTING CAPABILITIES				
personal checkbook check template	✔			
entire check laser printed on plain paper	✔			
any check form, w/wo stubs	✔			
custom check text fields & stub fields	✔			
selectable fonts on every check field	✔			✔
prints checks from other applications	✔			
REPORTS				
income vs. expense	✔	✔	✔	✔
debt analysis and reduction report	✔			
loan payment schedule	✔		✔	
savings schedule report	✔			✔
credit card analysis	✔			
budgeted vs. actual	✔	✔	✔	✔
cash flow projections	✔	✔	✔	✔
taxable expense summaries	✔	✔	✔	✔
graph reports	✔	✔	✔	✔
net worth report	✔	✔	✔	✔
spooler for multiple report printing	✔			
selectable budget category report groups	✔	✔	✔	✔
selectable multi-acct report categories	✔	✔	✔	
multi-year check register and budgeting	✔	✔		
EXTRA FINANCIAL SERVICES				
loan calculator	✔		✔	✔
automobile purchasing & dealer costing	✔			
insurance planning	✔			✔
retirement planning	✔		✔	✔
college fund planning	✔			✔
savings planning	✔			
lottery number picker	✔			
PASSWORD PROTECTION				
password levels	3	1	none	1
LINKS				
direct MacInTax® link	✔	✔		
direct link with payroll software	✔			
IMPORT/EXPORT CAPABILITIES				
addresses	✔			
text files import	✔			
text files export	✔	✔	✔	✔
transactions	✔		✔	✔
imports Quicken® and 'MYM®' files	✔			

Aatrix CheckWriter 4/0... for Financial Health!
Call (800) 426-0854

All trademarks are property of their respective owners.

CIRCLE 69 ON READER SERVICE CARD

Aatrix SOFTWARE

Product Index

The following index lists all product records in the MiniFinders section of The Ultimate Buying Guide. All current Macintosh hardware and software products that have been reviewed and rated in *MacUser* (up to and including the December 1992 issue) are in this MiniFinders product index.

Hardware products are generally listed alphabetically by manufacturer; software products are generally listed alphabetically by product. Most product categories include both hardware and software.

Each product is listed just once in MiniFinders, so check related categories for products that may serve your needs. For example, a CD-ROM that's useful to educators might appear in the Resources category instead of in Education (which lists products that actively teach instead of simply storing information). Likewise, a multipurpose Graphics & Design product that doesn't quite belong in any specialized subcategory would probably be listed at the beginning of the main Graphics & Design category.

Because product prices, hardware specifications, software features, and vendor addresses can change quickly, we recommend contacting manufacturers directly for the latest product information. Vendors can update their product listings by sending written notification to MiniFinders Database Manager, c/o *MacUser*, 950 Tower Lane, 18th Floor, Foster City, CA 94404.

PRODUCT	COMPANY	Page Number
1001 Fun Posters and More	Newslettermen	133
101 Scripts and Buttons for HyperCard	Components Software	237
3 in Three	Inline Design	122
3Com EtherLink/NB	3Com	206
3Com EtherLink/SE	3Com	206
4-D Boxing	Electronic Arts	122
4D Calc	ACIUS, Inc.	103
4D Compiler	ACIUS, Inc.	104
4D Draw	ACIUS, Inc.	104
4D Write	ACIUS, Inc.	104
4D XREF	ACIUS, Inc.	104
4th Dimension	ACIUS, Inc.	104
4thRight! Professional	Digital Concepts, Inc.	104
650 Megabyte Clip-Art Disk	Media Clip-Art, Inc.	186
911 Utilities	Microcom Utilities Product Group	290
A.M.E. (Access Managed Environment)	Casady & Greene, Inc.	305
A Silly Noisy House	The Voyager Company	122
A4	Softek Design, Inc.	129
AAIS Prolog	Advanced AI Systems	237
Abaton 8-bit Apple Scanner Upgrade	Abaton (Everex Systems)	243
Abaton InterFax 24/96	Abaton (Everex Systems)	276
Abaton LaserScript LX	Abaton (Everex Systems)	226
Abaton Scan 300/GS	Abaton (Everex Systems)	243
AccessPC	Insignia Solutions	206
Accountant, Inc.	Softsync, Inc.	129
ACCPAC Simply Accounting	Computer Associates International, Inc.	129
Accu-Weather Forecaster	Software Toolworks	278
AccuText	Xerox Imaging Systems, Inc.	311
Acknowledge	Prometheus Products, Inc.	237
Acta 7	Symmetry Software Corp.	219
Address Book Plus	Power Up Software Corp.	221
AddressWriter	CoStar Corp.	226
ADIC MacBack DAT	ADIC (Advanced Digital Information Corp.)	258
Adobe Premiere	Adobe Systems	106
AEC Information Manager	AEC Software, Inc.	224
Aesopolis	Quantum Leap Technologies, Inc.	118
After Dark	Berkeley Systems, Inc.	284
AgentDA	Team Building Technologies	221
Agfa Focus II S800GSE	Agfa Division, Miles Inc. (Business Imaging Systems)	243
Agfa Focus S800GS	Agfa Division, Miles Inc. (Business Imaging Systems)	243
Alarming Events	CE Software, Inc.	222
Alchemy	Passport Designs, Inc.	203
Aldus Gallery Effects	Aldus Corp.	196
Ali Baa Baa and the Forty Winks	Radical Sheep Productions, Inc.	123
Alias Sketch!	Alias Research, Inc.	192
AlisaTalk	Alisa Systems	207
Alphabet Blocks	Bright Star Technology, Inc.	118
Amazing Paint	CE Software, Inc.	197
Amazing Universe	Hopkins Technology	118
Amdek AM/738+	Amdek	106
American Discovery	Great Wave Software	118
American Heritage Electronic Dictionary	WordStar International, Inc.	312
Animation Works	Gold Disk, Inc.	192
Apache Strike	Aldus Corp.	123
Aperture	Graphic Management Group, Inc.	184
Apple A/UX	Apple Computer, Inc.	238
Apple Display 8•24	Apple Computer, Inc.	106
Apple Display 8•24 GC	Apple Computer, Inc.	106
Apple Ethernet NB Card	Apple Computer, Inc.	207
Apple File Exchange	Apple Computer, Inc.	290
Apple Hard Disk 80SC	Apple Computer, Inc.	250
Apple LaserWriter IIf	Apple Computer, Inc.	226
Apple LaserWriter IIg	Apple Computer, Inc.	226
Apple LaserWriter IINTX	Apple Computer, Inc.	226
Apple Macintosh 12" Monochrome Display	Apple Computer, Inc.	106
Apple Macintosh Book, The	Microsoft Press	241
Apple Macintosh IIci Logic Board Upgrade	Apple Computer, Inc.	235
Apple Macintosh IIfx Upgrade	Apple Computer, Inc.	235
Apple Macintosh Portrait Display	Apple Computer, Inc.	106
Apple Macintosh SE/30 Logic Board Upgrade	Apple Computer, Inc.	235
Apple MIDI Interface	Apple Computer, Inc.	203
Apple OneScanner	Apple Computer, Inc.	243
Apple Personal LaserWriter LS	Apple Computer, Inc.	226
Apple Personal LaserWriter NT	Apple Computer, Inc.	226
Apple Personal LaserWriter NTR	Apple Computer, Inc.	227
Apple Quadra 700 Upgrade	Apple Computer, Inc.	235
Apple Quadra 950 Upgrade	Apple Computer, Inc.	235
Apple StyleWriter	Apple Computer, Inc.	227
AppleColor High-Resolution RGB Monitor	Apple Computer, Inc.	106
AppleShare Server	Apple Computer, Inc.	207
AppleTalk Internet Router	Apple Computer, Inc.	207
Applied Engineering DataLink Express	Applied Engineering	278
Applied Engineering MacRAM Portable	Applied Engineering	250
Applied Engineering QuadraLink	Applied Engineering	207
Applied Engineering TransWarp 040	Applied Engineering	235
AppMaker	Bowers Development	238
Appoint Thumbelina Mac	Appoint	200
APS 105 MB	APS (Alliance Peripheral Systems)	250
APS 45 MB Removable	APS (Alliance Peripheral Systems)	258
APS Archive Python	APS (Alliance Peripheral Systems)	258
APS Maxtor 213 ZFP	APS (Alliance Peripheral Systems)	250
APS Quantum 210 Portable	APS (Alliance Peripheral Systems)	250
APS SyQuest 88 MB Drive	APS (Alliance Peripheral Systems)	258
APT Communications ComTalk	APT Communications, Inc.	207
Aqua Blooper Piper	Casady & Greene, Inc.	123
Armor Alley	Three-Sixty Pacific	123
Art of Darkness: The After Dark Companion	Peachpit Press	241
Artbeats	Artbeats	186
ArtClips	Olduvai Corp.	186
ArtWare: Equestrian	ArtWare Systems, Inc.	186
Asanté 10T Hub/8	Asanté Technologies, Inc.	207
Asanté 10T Hub/12	Asanté Technologies, Inc.	207
Asanté MacCon+ 30i ET	Asanté Technologies, Inc.	207
Asanté MacCon+ 30iE	Asanté Technologies, Inc.	207
Asanté MacCon+ II/E	Asanté Technologies, Inc.	207
Asanté MacCon+ IIET	Asanté Technologies, Inc.	207
Asanté MacCon+ LC	Asanté Technologies, Inc.	207
Asanté MacCon+ SE/E	Asanté Technologies, Inc.	207
ASCII Chart	Jon Wind	190
Asher Engineering quadLYNX Trackball	Asher Engineering	200

PRODUCT	COMPANY	Page Number
Ashlar Vellum	Ashlar, Inc.	184
Ashlar Vellum 3D	Ashlar, Inc.	185
Aspects	Group Technologies, Inc.	219
Atlas Pro	Strategic Mapping, Inc.	104
ATM (Adobe Type Manager)	Adobe Systems	190
ATTO SiliconDisk PRO	ATTO Technology, Inc.	250
ATTO SiliconExpress II	ATTO Technology, Inc.	235
AudioTRAX	Passport Designs, Inc.	203
Authenticate and Mutate	SoftStream International, Inc.	238
Authorware Professional	Macromedia, Inc.	199
Auto Mouse	Suntime	200
AutoBack	TerraNetics	290
AutoCAD	Autodesk, Inc.	185
AutoDoubler	Salient Software, Inc.	290
AutoSave II	Magic Software, Inc.	284
Avatar LanWay E-10T Direct Slot	Avatar Corp.	207
Avatar LanWay E-10T NuBus	Avatar Corp.	212
Avery Personal Label Printer	Avery Dennison Corp.	227
AVR 3000/CL Plus	Advanced Vision Research, Inc.	243
Azimuth	Graphsoft, Inc.	104
Backmatic	Magic Software, Inc.	290
Balance of the Planet	Chris Crawford (developer)	123
Bank Street Writer	Scholastic Software	309
BannerMania	Broderbund Software, Inc.	133
Barneyscan CIS•3515	Barneyscan Corp.	244
Barneyscan CIS•4520RS	Barneyscan Corp.	244
Baseball's Greatest Hits	The Voyager Company	123
BaseToBase	Remy Malan	246
Battle Chess CD-ROM Enhanced	Interplay Productions	123
BeagleWorks	Beagle Bros.	219
Beethoven's String Quartet	Warner New Media	203
Berlitz Think & Talk	HyperGlot Software	118
Better Working: The Resumé Kit	Spinnaker Software Corp.	309
Beyond	Dr. T's Music Software, Inc.	203
Beyond Dark Castle	Aldus Corp.	123
Bézier BP4040	Bézier Systems, Inc.	227
BiPlane	Night Diamonds Software	246
BizPlanBuilder	JIAN	224
Blesser	Dave McGary	284
Blueprint	Graphsoft, Inc.	185
Bookends Mac II	Sensible Software, Inc.	309
Bridge	Artworx Software	123
BroadCast	Joachim Lindenberg	212
Brother HL-4PS	Brother International Corp.	227
BulkMailer+	Satori Software	304
Business Plan Toolkit	Palo Alto Software	225
Business Sense	Business Sense, Inc.	129
Business Simulator	Strategic Management Group, Inc. (SMG)	118
C•A•T III	Chang Laboratories, Inc.	222
CA-Cricket Draw III	Computer Associates International, Inc.	187
CA-Cricket Graph	Computer Associates International, Inc.	246
CA-Cricket Presents	Computer Associates International, Inc.	199
Cabletron E4000	Cabletron Systems, Inc.	212
Cabletron E5000	Cabletron Systems, Inc.	212
Cabletron E5010 DNI	Cabletron Systems, Inc.	212
Cabletron E6000	Cabletron Systems, Inc.	212
Cabletron E6010 DNI	Cabletron Systems, Inc.	212
Cabletron MR9T	Cabletron Systems, Inc.	212
Cabletron MRX	Cabletron Systems, Inc.	212
CalComp ColorMaster Plus PS	CalComp, Inc.	227
CalComp DrawingBoard 2300A	CalComp Digitizer Products Group	200
CalComp DrawingBoard II	CalComp Digitizer Products Group	200
Calculator Construction Set	Dubl-Click Software, Inc.	246
CalenDAr	Psybron Systems, Inc.	222
CalendarMaker	CE Software, Inc.	222
CameraMan	Vision Software	133
Canned Art: Clip Art for the Mac	PeachPit Press	186
CanOpener	Abbott Systems	290
Canvas	Deneba Software	187
Capture	Mainstay	133
Carbon Copy/Mac	Microcom Utilities Product Group	212
CashLedger	CheckMark Software, Inc.	129
CasioLink for the Macintosh	Casio, Inc.	132
Cat•Back	Master Manufacturing, Inc.	290
Cataloger	Masters Publishing Co.	290
Cathy Daily Planner	Amaze, Inc.	222
Cause	Pluma Software	238
Cayman GatorBox CS	Cayman Systems	212
Cayman GatorCard E/II	Cayman Systems	212

PRODUCT	COMPANY	Page Number
cc:Mail Mac Platform Pack	cc:Mail	212
CD Technology HD Porta-Drive 200	CD Technology, Inc.	251
CD Technology Porta-Drive	CD Technology, Inc.	258
CDP 9000/TopScan for the Macintosh	Calera Recognition Systems	312
CheckFree	CheckFree Corp.	130
Checkwriter	Aatrix Software, Inc.	130
Cheshire	Abbott Systems	133
Chessmaster 2000	Software Toolworks	123
Chinon CDA-431	Chinon America, Inc.	258
Chinon DS-3000	Chinon America, Inc.	244
Chuck Yeager's Advanced Flight Trainer	Electronic Arts	123
CIM (CompuServe Information Manager)	CompuServe Information Service	278
Cinemation	Vividus Corp.	199
Claris CAD	Claris Corp.	185
ClarisWorks	Claris Corp.	219
Classic Textures	Blue Sky Research	191
CleanPath Computer-Controlled Maintenance Kit	Discwasher, Inc.	132
Click & Clip Illustrations	Studio Advertising Art	186
ClickArt	T/Maker Co.	186
ClickChange	Dubl-Click Software, Inc.	284
ClickPaste	Mainstay	284
Client	Trendware Corp.	219
Clipables: the EPS Graphics Library	C.A.R., Inc.	186
Clipboard Magician	Ed Lai	284
Cliptures	Dream Maker Software	186
ClubMac 44 MB Removable	ClubMac	258
CMaster	Jersey Scientific, Inc.	238
CMS Enhancements MacStack SD45RM	CMS Enhancements, Inc.	258
CMS PD 100S	CMS Enhancements, Inc.	251
CMS PD1000S	CMS Enhancements, Inc.	251
CMS Platinum 200	CMS Enhancements, Inc.	251
CMS Platinum 40MB	CMS Enhancements, Inc.	251
CMS Platinum 88MB	CMS Enhancements, Inc.	258
CMS Platinum DAT	CMS Enhancements, Inc.	258
CMS Platinum Series PD 300	CMS Enhancements, Inc.	251
Colby SE/30	Colby Systems	132
Colleague 2	Colleague Business Software, Inc.	219
Collector's Editions I and II	Adobe Systems	186
Color Bits	Stick Software (Ben Haller)	284
Color It!	Timeworks, Inc.	197
Color MacCheese	Delta Tao Software, Inc.	197
Colorado Spectrum Mouse Yoke	Colorado Spectrum	200
ColorSqueeze	Eastman Kodak Co.	290
ColorStudio	Fractal Design Corp.	197
Comic People, Volume 2: Kid Stuff	Foundation Publishing, Inc.	197
Comic Strip Factory, The	Foundation Publishing, Inc.	197
Comment	Deneba Software	284
Compact Pro	Cyclos Software	290
Compatible Systems Ether+	Compatible Systems Corp.	212
Compatible Systems Ether•Route	Compatible Systems Corp.	212
Compatible Systems Ether2 TP	Compatible Systems Corp.	212
CompileIt!	Heizer Software	238
Complete PC Half-Page Scanner/400	Complete PC	244
Complete Undelete	Microcom Utilities Product Group	290
Components Accounts Payable	Satori Software	130
Components Accounts Receivable	Satori Software	130
Components General Ledger	Satori Software	130
Composer's Mosaic	Mark of the Unicorn, Inc.	203
CompuLAN 8000 TPC	CompuLAN	213
CompuServe Navigator	CompuServe Information Service	278
Computer Care BookView Imperial	Computer Care, Inc.	106
Computer Friends ColorSnap 32+	Computer Friends, Inc.	106
Computer Friends Lightspeed 2400LE	Computer Friends, Inc.	278
Computer Friends MovieProducer	Computer Friends, Inc.	107
Computerized Classic Accounting	Absolute Solutions, Inc.	130
ConcertWare+	Great Wave Software	203
ConcertWare+ MIDI	Great Wave Software	203
ConstructionMac	Revelar	220
Contact Ease	WestWare, Inc.	220
Control Classic	Diamante Software	220
ConvertIt!	Heizer Software	238
Copy II Mac	Central Point Software, Inc.	294
CopyFlow	North Atlantic Publishing Systems	195
Core Optima 200	Core International, Inc.	251
Correct Grammar	WordStar International, Inc.	313
Correct Letters	WordStar International, Inc.	309
Correct Quotes	WordStar International, Inc.	241
Correct Writing	WordStar International, Inc.	309



While the cursor may hop or skip with some trackballs, Turbo Mouse® has always been known for its ultrasmooth movement.

Now, the latest version of Turbo Mouse is known for something else—jumping. Our new Brilliant Cursor technology makes it possible.

With it, you can move the cursor instantly to predefined HotSpots on the screen, such as the File and Edit menus and the Trash icon.

First, you define your HotSpots. Then, click a button and move the ball in the direction you want to go. The cursor automatically jumps to the predefined HotSpot. You can even program in different HotSpots for different applications and for different users.

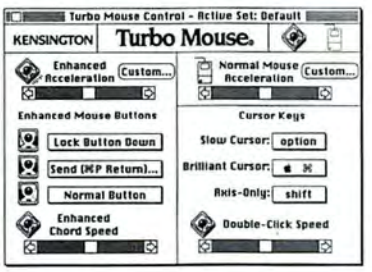
And Brilliant Cursor technology is not all that's new with Turbo Mouse 4.0. Also new is advanced acceleration with three levels of control and Enhanced Mouse Buttons that let you execute one of seven programmable commands. For example, send a Print command with just one click using Send String. Or move the cursor with ultra precision using Slow Cursor. Even save different combinations of commands for each of your favorite programs.

Then there's the award winning Turbo Mouse hardware. Hardware that has won more awards than any other input device. Hardware that has consistently been voted "Best Input Device" by Macintosh users worldwide. Features include a large comfortable ball, "easy-click" buttons, long-lasting precision stainless steel bearings, and two ADB ports for chaining other devices.

Turbo Mouse 4.0 is fully System 7.0 compatible. To receive information by fax, call 800-535-4242, dial 82 and request document 320. For general information, call 800-535-4242. Outside the US, 415-572-2700.

Introducing Turbo Mouse 4.0

With the all new Brilliant Cursor™ technology, you can actually make the cursor jump to any spot on the screen.



CIRCLE 130 ON READER SERVICE CARD.

The only trackball with ★★★★★ *from MacUser.*

KENSINGTON

Brilliant Cursor is a trademark and Turbo Mouse and Kensington are registered trademarks of Kensington Microware Limited.
Apple and Macintosh are registered trademarks of Apple Computer Inc. ©1992 Kensington Microware Limited. 7/92

PRODUCT	COMPANY	Page Number
CoStar LabelWriter II	CoStar Corp.	227
CoStar Stingray	CoStar Corp.	200
Course Builder	TRI (TeleRobotics International, Inc.)	238
Cranel 330MB	Cranel, Inc.	251
Crash Barrier	Casady & Greene, Inc.	286
Creepy Castle	Reactor, Inc.	123
Creepy Crawlies	Educorp Computer Services	241
Crystal Paint	Great Wave Software	197
Crystal Quest	Casady & Greene, Inc.	123
Cubase	Steinberg/Jones	203
CubeFloppy	Digital Instrumentation Technology, Inc.	258
Cue: The Film Music System	Opcode Systems, Inc.	203
Curtis MVP Mouse	Curtis Manufacturing Co., Inc.	200
Cypress Research FaxPro	Cypress Research Corp.	278
DacEasy Light Checkbook Acccunting	DacEasy, Inc.	130
DAL (Data Access Language)	APDA (Apple Programmers & Developers Association)	213
Danny Goodman's Macintosh Handbook Featuring System 7	Bantam Computer Books	241
Darius TSM1431	Darius Technology, Inc.	107
Dark Castle	Aldus Corp.	123
Darwin's Dilemma	Inline Design	126
Data Desk	Data Description, Inc.	246
DAtabase	Baseline Publishing, Inc.	104
DataClub Classic	Novell, Inc.	213
DataMerge	Seawell MicroSystems, Inc.	246
DataPivot	Brio Technology	246
Dataproducts LZR 960	Dataproducts Corp.	227
DataShaper	ElseWare Corp.	195
DateBook	After Hours Software	222
David Systems Ether-T Mac	David Systems, Inc.	213
David Systems VolksNet LAN	David Systems, Inc.	213
DayMaker	Pastel Development Corp.	222
Dayna DaynaPORT E/II-T	Dayna Communications, Inc.	213
Dayna DaynaPORT E/LC-T	Dayna Communications, Inc.	213
Dayna DaynaSTAR Hub-12	Dayna Communications, Inc.	213
Dayna DaynaSTAR MiniHub	Dayna Communications, Inc.	213
Dayna EtherPrint	Dayna Communications, Inc.	227
DaynaFile II	Dayna Communications, Inc.	260
DayStar FastCache	DayStar Digital, Inc.	235
DayStar FastCache Quadra 700/900	DayStar Digital, Inc.	235
DayStar FastCache Quadra 700/900/950	DayStar Digital, Inc.	235
DayStar PowerCache	DayStar Digital, Inc.	235
Dead Mac Scrolls, The	Peachpit Press	241
Debugger V2 and MacNosy	Jasik Designs	238
Deck	Digidesign	203
DeltaGraph Professional	DeltaPoint, Inc.	247
Deltaic DS40Q	Deltaic Systems	251
Deltaic OptiServer 600	Deltaic Systems	260
Deltaic Server 1000	Deltaic Systems	251
Deltaic Server 1G	Deltaic Systems	251
Deltaic Server 200Q	Deltaic Systems	251
Deltaic Server 300Q	Deltaic Systems	251
Deluxe Music Construction Set	Electronic Arts	203
Denon DRD-253	Denon America	260
Design Essentials	Adobe Press	241
Design Your Own Home: Architecture	Abracadata Ltd.	187
DesignCAD 2D/3D	DesignCAD, Inc.	185
Desk	Zedcor	220
DeskCalc	Zedcor	247
DeskPaint and DeskDraw	Zedcor	133
DGR 128REM	DGR Technologies, Inc.	260
DiagramMaker	Action Software	220
Dialoger Professional	Heizer Software	238
Diamonds	Varcon Systems, Inc.	126
Diet Balancer	Nutridata Software	222
Dietician	ALSoft, Inc.	119
Digicom ScoutPlus	Digicom Systems, Inc.	278
Digidesign Audiomedia	Digidesign	204
Digidesign MacProteus	Digidesign	204
Digidesign Pro Tools	Digidesign	204
Digidesign SampleCell	Digidesign	204
digiMatic	Famous Engineer Brand Software	247
Digit-Art	Image Club Graphics, Inc.	186
Digital Darkroom	Aldus Corp.	197
Digital DECrepeater 90T	Digital Equipment Corp.	213
Digital Gourmet, The	Books-on-Disk	241
DIRectory	Seagull Engineering	294
Disk First Aid	Apple Computer, Inc.	294
Disk Ranger	Graham Software Co.	294
DiskDoubler	Salient Software, Inc.	294
DiskExpress II	ALSoft, Inc.	294
DiskFinder	Williams & Macias, Inc.	294
DiskLock	Fifth Generation Systems	308
DiskTop	CE Software, Inc.	294
DiskTwin	Golden Triangle Computers, Inc.	250
DiVA VideoShop	DiVA Corp.	107
DocuComp	Advanced Software, Inc.	309
Dollars & Sense	Business Sense, Inc.	130
DOS Mounter	Dayna Communications, Inc.	294
Double Helix	Helix Technologies	104
Dove DoveFax Desktop	Dove Computer Corp.	278
Dove FastNet III	Dove Computer Corp.	213
Dove FastNet SE	Dove Computer Corp.	213
Dove FastNet SE/30	Dove Computer Corp.	213
Dove FastNetSCSI	Dove Computer Corp.	213
DPI 44 Removable	PLI (Peripheral Land, Inc.)	260
Dr. Macintosh	Addison-Wesley Publishing Co., Inc.	241
Dr. T's Intro+	Dr. T's Music Software, Inc.	204
Dreams	Innovative Data Design, Inc. (idd)	185
Du Pont PPI 600	Du Pont Printing and Publishing	227
DynaPerspective	Dynaware USA, Inc.	185
DynaTek DAT 1300	DynaTek Automation Systems, Inc.	260
DynaTek HDA 234	DynaTek Automation Systems, Inc.	251
Dynodex	Portfolio Systems, Inc.	222
DynoPage	Portfolio Systems, Inc.	304
E-Machines ColorPage E16	E-Machines, Inc.	107
E-Machines ColorPage T16	E-Machines, Inc.	107
E-Machines ColorPage T16/24	E-Machines, Inc.	107
E-Machines ColorPage T16/8	E-Machines, Inc.	107
E-Machines Futura MX	E-Machines, Inc.	107
E-Machines QuickView Studio QT	E-Machines, Inc.	107
E-Machines T19/24	E-Machines, Inc.	107
E-Machines TX/24	E-Machines, Inc.	107
Earthquest	Earthquest, Inc.	119
Easy Alarms	Essential Software	222
Easy Color Paint	MECC	197
Easy4D	Natural Intelligence, Inc.	104
Ecolinking	Peachpit Press	241
Editorial Advisor	Petroglyph, Inc.	313
Educorp CD-ROM	Educorp Computer Services	241
Electric Dvorak	Tom Phoenix	286
ElectricImage Animation System	Electric Image, Inc.	192
EMAC Metro 88R	EMAC (Everex Systems)	260
EMAC Metro CD	EMAC (Everex Systems)	260
EMAC Metro DAT	EMAC (Everex Systems)	260
EMAC Silhouette	EMAC (Everex Systems)	200
EMAC Speedlink II	EMAC (Everex Systems)	213
EMAC SpeedLink/II TP	EMAC (Everex Systems)	213
EMAC SpeedLink SE/30	EMAC (Everex Systems)	214
EMAC SpeedLink/SE30 TP	EMAC (Everex Systems)	214
Empower II	Magna	308
Encore	Fassport Designs, Inc.	204
EndNote Plus	Niles & Associates, Inc.	309
Engage SyncRouter LTi	Engage Communication, Inc.	214
Enhance	MicroFrontier, Inc.	197
Envisio Notebook Display Adaptor	Envisio, Inc.	107
Envisio Notebook Display Adaptor 030	Envisio, Inc.	108
Epson EPL-7500	Epson America, Inc.	227
Epson ES-300C	Epson America, Inc.	244
Ergotron Workstation	Ergotron, Inc.	133
ETC 88R Removable Drive	ETC Peripherals, Inc.	260
ETC DataPort 210	ETC Peripherals, Inc.	260
EtherPeek	AG Group	214
Evolution	Image Club Graphics, Inc.	191
Evolve	Absolute Solutions, Inc.	130
Excel	Microsoft Corp.	247
Expanded Books	The Voyager Company	241
ExperCommon LISP	ExperTelligence, Inc.	238
ExperProlog II	ExperTelligence, Inc.	238
Expert Home Design	Softsync, Inc.	187
Expressionist	Prescience Corp.	309
Exstatix	Strategic Mapping, Inc.	247
EZ Vision	Opcode Systems, Inc.	204
Fair Witness	Chena Software, Inc.	220
Falcon	Spectrum HoloByte	126
Family Doctor	Creative Multimedia Corp.	241
FamilyCare	Lundin Laboratories, Inc.	241

FROM THE MAKERS OF AFTER DARK

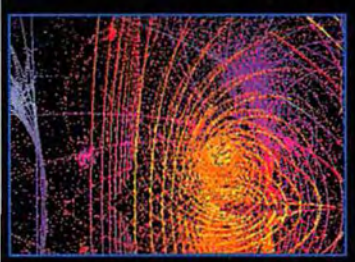
STAR TREK®

THE SCREEN SAVER











Beam aboard the U.S.S. Enterprise™ with Captain Kirk, Mr. Spock and all your favorite Star Trek characters on a mission to prevent screen damaging phosphor burn-in. You'll encounter troublesome Tribbles, visit Dr. McCoy's sickbay, and battle a Romulan bird of prey in this incredible new screen saver inspired by the original Star Trek TV series. And, it runs all your favorite After Dark displays.

Now your monitor will "Live Long and Prosper™" with Star Trek: The Screen Saver.

Stand Alone Product.
After Dark software not required.

- **Prevents phosphor burn-in**
- **Over 15 incredible Star Trek graphic displays**
- **Runs all After Dark® displays**
- **Sound Source™ digital sound**
- **Screen-locking security system**
- **Message display**
- **SystemIQ™ activity monitor**
- **Runs on color and B/W monitors**

BERKELEY SYSTEMS

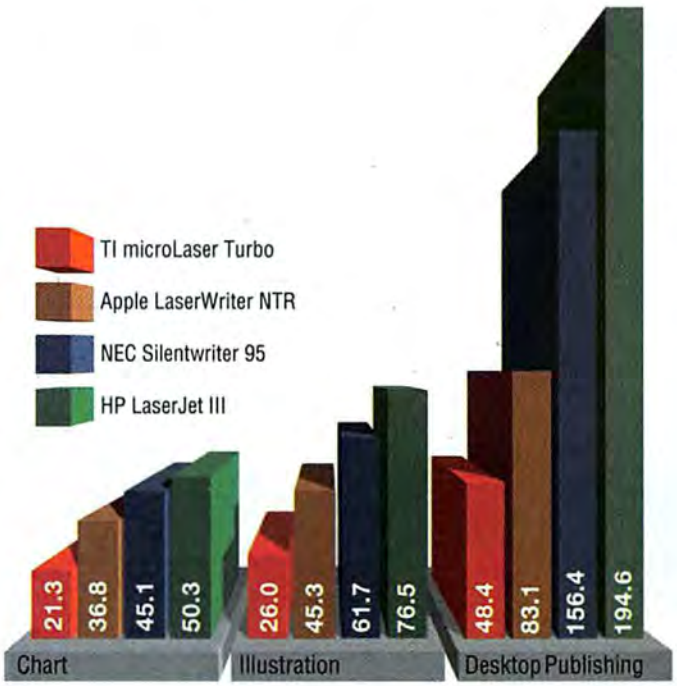
2095 Rose St., Berkeley, CA 94709
510-540-5535

TM, ®, & © 1992 Paramount Pictures. All rights reserved. STAR TREK is a registered trademark of Paramount Pictures. Berkeley Systems authorized user. After Dark is a registered trademark of Berkeley Systems.

PRODUCT	COMPANY	Page Number
Farallon Ether Mac 30i Card for Ethernet	Farallon Computing, Inc.	214
Farallon Ether Mac II Card for Ethernet	Farallon Computing, Inc.	214
Farallon PhoneNET StarController/12 EN	Farallon Computing, Inc.	214
FAST Electronics Screen Machine	FAST Electronics	108
FAST Electronics Screen Machine Junior	FAST Electronics	108
Fast Forms	Power Up Software Corp.	195
Fastat	Systat, Inc.	247
Fastback Plus	Fifth Generation Systems	294
FastBack Tape	Fifth Generation Systems	260
FastEnvelope	Vertical Solutions	304
FastLabel	Vertical Solutions	304
FastTrack Resource	AEC Software, Inc.	225
FastTrack Schedule	AEC Software, Inc.	225
Fax Line Manager	Technology Concepts (Prometheus Products)	278
FAXstf	STF Technologies, Inc.	278
FEdit Plus	MacMaster Systems	294
Felix	ALTRA	200
Ferrari Grand Prix	Bullseye Software	126
FetchIt	CRA Z Software	294
File	Microsoft Corp.	105
File Director	Fifth Generation Systems	294
File Force	ACIUS, Inc.	105
FileGuard	ASD Software, Inc.	308
FileMaker Pro	Claris Corp.	105
Filevision IV	TSP Software	105
FilmMaker	Macromedia, Inc.	192
Finale	Coda Music Software	204
Findswell	Working Software, Inc.	294
First Things First	Visionary Software, Inc.	222
Flash	Beagle Bros.	214
FlexForm Business Templates	Formula, Inc.	195
FlexiGraphs	Tree Star, Inc.	247
FlexiTrace	Tree Star, Inc.	247
Flexware	Flexware, Inc.	130
FlowChart Express	Kaetron Software Corp.	225
FlowMaster	Telmar Information Services Corp.	225
Focus Enhancements EtherLAN SC	Focus Enhancements, Inc.	214
Focus Enhancements EtherLAN SC-T	Focus Enhancements, Inc.	214
Focus Enhancements TurboStar	Focus Enhancements, Inc.	214
FolderBolt	Kent Marsh Ltd.	308
Fontina	Eastgate Systems	191
FontMonger	Ares Software	191
Fontographer	Altsys Corp.	191
FontSizer II	American Microelectronics	191
FontStudio	Letraset USA, Inc.	191
Fora Addonics Mon-7C8A	Fora, Inc.	108
FoxBASE+/Mac	Fox Software, Inc.	105
FrameMaker	Frame Technology Corp.	195
Freedom of Press	Custom Applications, Inc.	304
Freedom of Press Light	Custom Applications, Inc.	304
FreeHand	Aldus Corp.	190
FreeWheel Pointer	Pointer Systems, Inc.	200
French Reading Lab 1: 3 by Maupassant	HyperGlot Software	119
Front Desk MultiUser	Peachtree Software	223
Frontier	UserLand Software	238
Ft. Knox	Transfinite Systems Co., Inc.	308
Fujitsu RX-7100PS	Fujitsu America, Inc.	227
Fujitsu RX-7100PS+	Fujitsu America, Inc.	227
Full Impact	Borland International, Inc.	247
FullWrite Professional	Borland International, Inc.	309
Fun Physics	Knowledge Revolution	119
Funny: The Movie in QuickTime	Warner New Media	126
Fusion Data TokaMac ci	Fusion Data Systems	235
Fusion Data TokaMac II FX 33	Fusion Data Systems	235
Fusion Data TokaMac LC	Fusion Data Systems	235
Fusion Data TokaMac SX	Fusion Data Systems	236
FWB Hammer 1000	FWB, Inc.	251
FWB Hammer 300	FWB, Inc.	251
FWB HammerDAT 2000	FWB, Inc.	260
FWB HammerDisk 44	FWB, Inc.	260
FWB HammerDisk 600S	FWB, Inc.	260
FWB HammerDisk 88	FWB, Inc.	260
FWB PocketHammer 100	FWB, Inc.	252
FWB PocketHammer 200	FWB, Inc.	252
FWB PocketHammer 50	FWB, Inc.	251
Galaxy	Opcode Systems, Inc.	204
GCC BLP Elite	GCC Technologies, Inc.	227
GCC BLP Elite 8	GCC Technologies, Inc.	227
GCC BLP II	GCC Technologies, Inc.	230
GCC BLP IIS	GCC Technologies, Inc.	230
GCC Personal LaserPrinter II	GCC Technologies, Inc.	230
GCC Personal LaserPrinter IIS	GCC Technologies, Inc.	230
GCC Technologies WriteImpact	GCC Technologies, Inc.	230
GCC UltraDrive 100S	GCC Technologies, Inc.	252
GCC UltraDrive 430S	GCC Technologies, Inc.	252
GCC WriteMove	GCC Technologies, Inc.	230
General Parametrics Spectra*Star 430	General Parametrics Corp.	230
General Parametrics StarTime/VideoShow	General Parametrics Corp.	108
Generation Systems Color 24	Generation Systems, Inc.	108
Generation Systems CT-20	Generation Systems, Inc.	108
Generation Systems TV Board	Generation Systems, Inc.	108
Generation Systems TV Box	Generation Systems, Inc.	108
Generic CADD	Autodesk Retail Products	185
GeoQuery	GeoQuery Corp.	105
Global Village TelePort A300	Global Village Communications, Inc.	278
GraceLAN	Technology Works, Inc. (TechWorks)	214
Grammatik Mac	Reference Software International	313
Graphics Pak	ArtWare Systems, Inc.	186
GraphMaster	Visual Business Systems, Inc.	247
Gravitation Ltd.	Jeff Rommereide	119
Great Plains Accounting Series	Great Plains Software	130
GreatWorks	Symantec Corp.	220
Grolier New Electronic Encyclopedia	Grolier Electronic Publishing, Inc.	242
GTV: A Geographic Perspective on American History	Optical Data Corp.	242
Halls of Montezuma	Strategic Studies Group, Inc.	126
HAM	Inline Design	294
HAND-OFF II	Connectix Corp.	296
HandiWorks	MacVONK, Inc.	220
Handwriting Analyst	Wintergreen Software, Inc.	126
Hard Disk ToolKit	FWB, Inc.	296
Harmony Grid	VPL Research, Inc.	204
Hayes ULTRA 144	Hayes Microcomputer Products, Inc.	280
Hayes V-series Smartmodem 9600	Hayes Microcomputer Products, Inc.	280
HDI CD-ROM	HDI (Hard Drives International)	260
HDI PowerDrive 320	HDI (Hard Drives International)	252
HDI PowerDrive 44 Removable	HDI (Hard Drives International)	262
HDI PowerDrive 1.3 Gig DAT	HDI (Hard Drives International)	262
HDI PowerDrive 200 (Maxtor)	HDI (Hard Drives International)	252
HDI PowerDrive Removable 88MB	HDI (Hard Drives International)	262
Headline Harry and the Great Paper Race	Davidson & Associates	119
HeadMaster	Prentke Romich Co.	201
Health: AIDS	Optical Data Corp.	242
Help!	Teknosys, Inc.	286
Hermes & Tribune Fonts	Miles & Miles (Doug Miles)	191
Hewlett-Packard 48SX Calculator	Hewlett-Packard (Direct Marketing)	133
Hewlett-Packard ColorPro Graphics Plotter	Hewlett-Packard (Direct Marketing)	230
Hewlett-Packard DeskWriter	Hewlett-Packard (Direct Marketing)	230
Hewlett-Packard DeskWriter C	Hewlett-Packard (Direct Marketing)	230
Hewlett-Packard LaserJet III	Hewlett-Packard (Direct Marketing)	230
Hewlett-Packard LaserJet IIIP	Hewlett-Packard (Direct Marketing)	231
Hewlett-Packard LaserJet IIISi	Hewlett-Packard (Direct Marketing)	231
Hewlett-Packard LaserJet IIP	Hewlett-Packard (Direct Marketing)	230
Hewlett-Packard PaintJet	Hewlett-Packard (Direct Marketing)	231
Hewlett-Packard PaintJet XL	Hewlett-Packard (Direct Marketing)	231
Hewlett-Packard PaintWriter	Hewlett-Packard (Direct Marketing)	231
Hewlett-Packard PaintWriter XL	Hewlett-Packard (Direct Marketing)	231
Hewlett-Packard ScanJet IIc	Hewlett-Packard (Direct Marketing)	244
Hewlett-Packard ScanJet IIp	Hewlett-Packard (Direct Marketing)	244
HFS Backup	PCPC (Personal Computer Peripherals Corp.)	296
HookUp!	Hip Software Corp.	239
Hot Keys (MacWrite II version)	K.I.S.S. (Keep It Simple Software)	309
Howtek Personal Color Scanner	Howtek, Inc.	244
Howtek Scanmaster	Howtek, Inc.	244
Howtek Scanmaster 35/II	Howtek, Inc.	244
HyperAnimator	Bright Star Technology, Inc.	239
HyperAtlas	MicroMaps Software	242
HyperBASIC	System Technology Corp.	239
HyperBible	Kirkbride Technology	242
HyperBundle	Components Software	239
HyperCard	Claris Corp.	239
HyperDA	Symmetry Software Corp.	239
HyperDialer	DataDesk International (Prometheus Products)	280
HyperHIT	SoftStream International, Inc.	105
ICD Graflex	ICD, Inc.	231
Icon-It!	Olduvai Corp.	286
IdeaFisher	Fisher Idea Systems, Inc.	220
Igor	WaveMetrics	247

FASTER FASTER FASTER

LOWER





Total Printing Time In Seconds

It's a fact. Now you can get faster PostScript® printing at a new lower price.

According to benchmark performance tests,* the TI microLaser™ Turbo printer is faster than the Hewlett Packard LaserJet® III, NEC 95 and Apple® NTR when it comes to charts, illustrations and desktop publishing. That's because it sports *two* processors – standard and RISC – for turbo-charged speed.

But when it comes to high performance, consider what else the Turbo has to offer:

POSTSCRIPT™ Software From Adobe

Your choice of PC or PC/Macintosh® configuration. HP LaserJet II emulation and Adobe® PostScript Level 2 software with 35 of the most popular outline fonts to dress up your documents. Automatic switching between HP and PostScript modes so you can print and go – no set-up, no problem. And the ability to connect simultaneously to more than one computer, Windows™-based or Mac, and print with ease.

Best of all, with its new lower price of $1,749** for the PC model and only $50 more for PC *and* Mac compatibility, the microLaser Turbo is selling fast, too. Call right now for more information on the Turbo or other microLaser printer models.

1-800-527-3500.

TEXAS INSTRUMENTS

MACWORLD MW EDITORS' CHOICE

MacUser

*Call TI for a copy of Genoa Technology's benchmark test results and specifications of models tested.

**Manufacturer's suggested retail price – dealer prices may vary.

microLaser is a trademark of Texas Instruments Incorporated. Adobe, PostScript and the PostScript Logo are trademarks of Adobe Systems, Incorporated, which may be registered in certain jurisdictions. Apple and Macintosh are registered trademarks of Apple Computer, Inc. Windows is a trademark of Microsoft Corporation. The microLaser printer family has earned MacWorld's 1992 Editor's Choice Award and the microLaser Turbo has earned MacUser's 1992 Four Mice award. Reprinted from MacUser, September 1992. ©1992 Ziff Communications Company.

©1992 TI

CIRCLE 168 ON READER SERVICE CARD.

76532

PRODUCT	COMPANY	Page Number
iir Cache Card 32	Impulse Technology	236
Illustrator	Adobe Systems	190
Image Analyst	Automatix	184
Image Grabber	Sabastian Software	184
Image TWINCOM 14.4/DF	Image Communications	280
Images with Impact!	3G Graphics, Inc.	187
ImageStudio	Fractal Design Corp.	197
ImpressIt	Radius, Inc.	296
Impulse Performance/040	Impulse Technology	236
In Control	Attain Corp.	223
In Touch	Advanced Software, Inc.	223
Infini-D	Specular International	193
Informed Designer	Shana Corp.	195
INIT-cdev	John Rotenstein	296
INIThound	Cambridge Information Ware	239
INITPicker	Inline Design	296
Insanity	UV Wave	126
Inside Information	Microlytics, Inc.	313
Inspiration	Ceres Software, Inc.	220
Instant Update	ON Technology, Inc.	310
Instant-Expert	Human Intellect Systems	239
Intel 2400EX MNP-Macintosh	Intel Corp.	280
IntelliDraw	Aldus Corp.	190
Inter•Poll	Apple Computer, Inc.	214
Interactive Physics II	Knowledge Revolution	119
interFACE	Bright Star Technology, Inc.	239
Interleaf Publisher	Interleaf, Inc.	195
Intermission	ICOM Simulations, Inc.	286
Iomega Bernoulli 90	Iomega Corp.	262
Iomega Transportable 44	Iomega Corp.	262
IPLab Spectrum	Signal Analytics Corp.	103
Irwin 9131Se	Maynard Electronics, Inc.	262
Ishido	Publishing International	126
JAG	Ray Dream, Inc.	198

PRODUCT	COMPANY	Page Number
Jam Factory	Dr. T's Music Software, Inc.	204
JMP	SAS Institute, Inc.	248
Just Enough Pascal	Symantec Corp.	239
Kaboom!	Nova Development	204
KaleidaGraph	Synergy Software	248
Kennect Drive 2.4	Kennect Technology	262
Kensington Microware Turbo Mouse ADB	Kensington Microware Ltd.	201
KernEdit	Agfa Division, Miles Inc. (Type Products)	191
KeyLock	VikingTech	133
KeyPlan	Micro Planning International	225
Kid Pix	Brøderbund Software, Inc.	126
Kid Pix Companion	Brøderbund Software, Inc.	126
Kid Works 2	Davidson & Associates	126
KidsMath	Great Wave Software	119
KidsTime	Great Wave Software	119
Kidz Mouse	Logitech, Inc.	201
Kiwi POWER WINDOWS	Kiwi Software, Inc.	286
KiwiEnvelopes!	Kiwi Software, Inc.	304
Klondike	Unison-Tymlabs	126
Kodak Diconix Color 4	Eastman Kodak (Printer Products Division)	231
Kodak Diconix M150 Plus	Eastman Kodak (Printer Products Division)	231
Kodak Ektaplus 7016	Eastman Kodak (Printer Products Division)	231
Kodak XL7700	Eastman Kodak Co.	231
Kurta IS	Kurta Corp.	201
Kyocera Q-8010	Kyocera Electronics, Inc.	231
La Cie 1000MB ZFP Plus	La Cie Ltd.	252
La Cie 45 MB Removable	La Cie Ltd.	262
La Cie Express Drive 240	La Cie Ltd.	262
La Cie Q-ZFP 200	La Cie Ltd.	252
La Cie Silverscanner	La Cie Ltd.	244
La Cie Tsunami 100	La Cie Ltd.	252
La Cie Tsunami 200	La Cie Ltd.	252
La Cie Tsunami 50	La Cie Ltd.	252
La Cie ZFP 400	La Cie Ltd.	252



In-house production v

Introducing the first video production system that doesn't require any rewiring, rearranging or refinancing.

The new Radius VideoVision.

The only desktop video publishing system in the entire world that integrates text, graphics, digital video and sound.

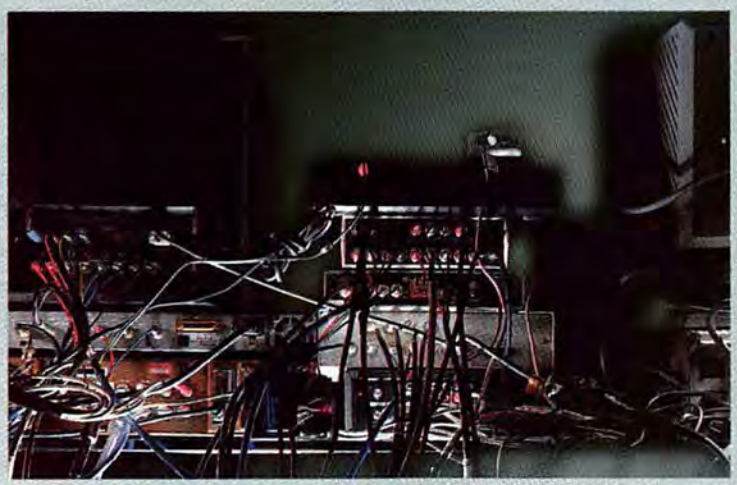
VideoVision makes creating and publishing colorful videos incredibly simple by letting you print to tape anything you can see or hear on your desktop. Once on tape, VideoVision makes for really easy distribution of your sales presentation, training demo or educational material. It supports 24-bit flicker-free video output and drives 13" monitors in full-frame

W E M A K E O R D I N A R Y C O M P U T E R S

©1992 Radius Inc. Radius, the Radius logo and all Radius product names are trademarks of Radius Inc.

Product Index, continued

PRODUCT	COMPANY	Page Number
LabVIEW	National Instruments Corp.	103
LANDesign	Compuneering, Inc.	185
Lapis DisplayServer II	Lapis Technologies	108
LapLink Mac III	Traveling Software, Inc.	214
LaserMaster 1000	LaserMaster Corp.	231
Last Resort	Working Software Inc.	310
Layouts	Postcraft International, Inc.	195
Leaf Systems Leafscan 35	Leaf Systems, Inc.	244
Leaf Systems Leafscan 45	Leaf Systems, Inc.	245
LetraStudio	Letraset USA, Inc.	191
LetrTuck	EDCO Services	191
Letter Writer Plus	Power Up Software Corp.	310
Letterforms and Illusion	W. H. Freeman & Co.	191
LetterWorks	Round Lake Publishing, Inc.	310
Lexmark IBM LaserPrinter 6A	Lexmark International, Inc.	231
Liberty 115 128MB-MO	Liberty Systems, Inc.	262
Liberty 70 Series 105Q	Liberty Systems, Inc.	252
Liberty 702100	Liberty Systems, Inc.	252
Liberty 88MB Removable Drive	Liberty Systems, Inc.	262
Life Forms	Macromedia, Inc.	193
LifeGuard	Visionary Software, Inc.	286
LightningScan Pro 256	Thunderware, Inc.	245
Listen	Imaja	205
Living Books	Brøderbund Software, Inc.	126
LocalPeek	AG Group	215
LocalSwitch	Tribe Computer Works	215
Logicode QuickTel Xeba M14.4XV Fax	Logicode Technology, Inc.	280
Logitech MouseMan	Logitech, Inc.	201
Logitech ScanMan Model 32	Logitech, Inc.	245
Logitech TrackMan	Logitech, Inc.	201
Lookup	Working Software, Inc.	313
Lotus 1-2-3 for Macintosh	Lotus Development Corp.	248
Loviél M210QUP	Loviél Computer Corp.	252
Loviél M210QUZF	Loviél Computer Corp.	252
Loviél Maxcess 105e	Loviél Computer Corp.	253
Loviél Maxcess 88SYZF	Loviél Computer Corp.	262
LRU Systems Nodem	LRU Systems, Inc.	215
LXR•TEST	Logic eXtension Resources	119
M	Dr. T's Music Software, Inc.	205
M.Y.O.B.	Teleware, Inc.	131
Mac 'N Touch	MicroTouch Systems, Inc.	201
Mac Made Easy, The	Osborne/McGraw Hill	242
Mac Shareware 500, The	Ventana Press	242
Mac-101	DataDesk International (Prometheus Products)	201
MacADIOS II	GW Instruments	103
MacCalc	Bravo Technologies, Inc.	248
MaccessCard Reader	ASD Software, Inc.	308
macClaimChek	Te Corp.	223
MacDirect 105MB	MacDirect Corp.	253
MacDraft	Innovative Data Design, Inc. (idd)	190
MacDraw II	Claris Corp.	190
MacDraw Pro	Claris Corp.	190
MacEKG	MicroMAT Computer Systems	286
MacEnvelope	Synex	304
MacEnvelope Plus	Synex	304
MacFlow	Mainstay	225
MacFriends QuicKor TS	MacFriends	232
MacGallery	Dream Maker Software	187
MacGenius	Genius Technology	108
MacGlobe	Brøderbund Software, Inc.	242
MacGraphics	GoldMind Publishing	187
MacGraphX	Bravo Technologies, Inc.	248
MacInTax	ChipSoft, Inc.	131
Macintosh Common LISP	APDA (Apple Programmers & Developers Association)	239
Macintosh Dictionary, The	Addison-Wesley Publishing Co., Inc.	242
MacInvoice	Synex	131
MacLand SyQuest 44 MB	MacLand, Inc.	262



s. outhouse production.

solution, 24-bit color. It also supports digital
deo recording through Apple's QuickTime
ftware, and video playback at 30
ames per second, video-in-a-window.
nd if that weren't enough, VideoVision
is compatible with NTSC, PAL and SECAM,
and lets you easily convert from one standard
to another.



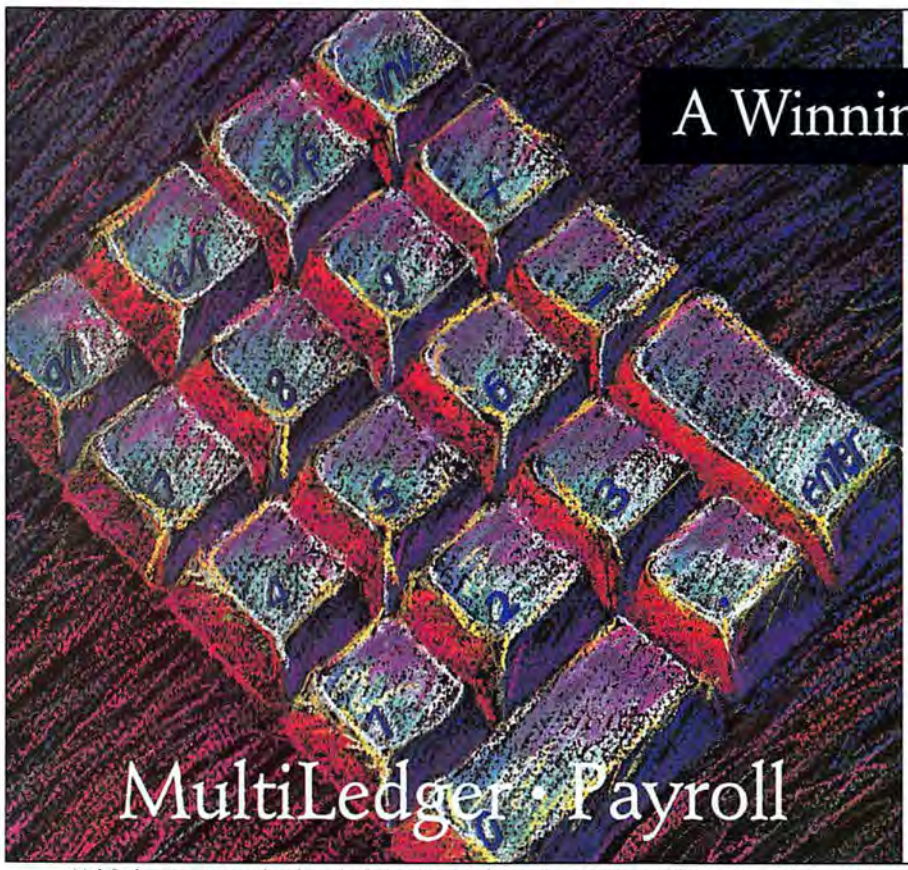
Get VideoShop and Action!, $1,100 worth of software free.

If you'd like to know how to do all this and receive a free videotape demonstration, call 1-800-227-2795. Or for immediate faxed information, dial 1-800-966-7360.

We'll take all your unnecessary wiring and turn it outside in.

D O E X T R A O R D I N A R Y T H I N G S. radius

PRODUCT	COMPANY	Page Number
MacLinkPlus/PC	DataViz, Inc.	296
MacLinkPlus/Translators	DataViz, Inc.	296
MacMoney	Survivor Software Ltd.	131
MacPaint	Claris Corp.	198
MacPhonebook	Synex	223
MacPhotography Workshop	Intellimation Library for the Macintosh	119
MacPrint	Insight Development Corp.	305
MacPro Plus Keyboard	Key Tronic Corp.	201
MacProducts '030 RailGun-25 MHz	MacProducts USA, Inc.	236
MacProducts Magic 1.2 Gigabyte HD	MacProducts USA, Inc.	253
MacProducts Magic 128REM	MacProducts USA, Inc.	262
MacProducts Magic 210	MacProducts USA, Inc.	253
MacProducts Magic 40MB	MacProducts USA, Inc.	253
MacProducts Magic 88	MacProducts USA, Inc.	269
MacProducts Magic EtherNet II/10T	MacProducts USA, Inc.	215
MacProducts MagicDrive 105LP External	MacProducts USA, Inc.	253
MacProducts Magic 45 Removable	MacProducts USA, Inc.	269
MacProject II	Claris Corp.	225
MacRacquetball	XOR Corp.	127
MacRecorder Sound System	Macromedia, Inc.	205
MacRenderMan	Pixar, Inc.	193
Macromind Director	Macromedia, Inc.	199
MacroMind Three-D	Macromedia, Inc.	193
MacSafe	Kent Marsh Ltd.	308
MacSchedule	Mainstay	225
MacSpin	Abacus Concepts, Inc.	248
MacTable	ScanCo	133
MacTel HD Index 210MB	MacTel Technology	253
MacTel HD Index 105MB	MacTel Technology	253
MacTel Index 45 Removable	MacTel Technology	269
MacTel Index 88R	MacTel Technology	269
MacTography Type Sampler and Type Listing	MacTography	191
MacTools	Central Point Software, Inc.	296
MacTOPAS	AT&T Graphics Software Labs	193
MacTOPS	Sitka Corp.	215
MacTown DataStor 210 MB	MacTown	253
MacTown DataStor 213 MB	MacTown	253
MacTown DataStor 88	MacTown	269
MacTown DataStor DS44/25MR	MacTown	269
MacTown DataStor HM1.2/15M	MacTown	253
MacWrite II	Claris Corp.	310
Mag Innovision MX14S	Mag Innovision	108
Magic	Macromedia, Inc.	199
Magic Flute Audio Notes	Warner New Media	205
Magnalink 3000 CB	Magnalink Communications	215
Managing Your Money	MECA Software, Inc.	131
MapInfo for Macintosh	MapInfo Corp.	105
Mariah	Symmetry Software Corp.	184
Market Master	Breakthrough Productions	221
MarkUp	Mainstay	310
Masquerade	Night Diamonds Software	239
Mass Microsystems ColorSpace IIi/FX	Mass Microsystems, Inc.	108
Mass Microsystems DataPak 45	Mass Microsystems, Inc.	269
Mass Microsystems DataPak 88	Mass Microsystems, Inc.	269
Mass Microsystems DataPak MO/128	Mass Microsystems, Inc.	269
Mass Microsystems QuickImage 24	Mass Microsystems, Inc.	109
Master Tracks Pro	Passport Designs, Inc.	205
Master Tuner	Andromeda Computer Systems	205
MasterFinder	Olduvai Corp.	296
MasterJuggler	ALSoft, Inc.	286
MasterWord	Alki Software Corp.	310
Mathcad	MathSoft, Inc.	248
Mathematica	Wolfram Research, Inc.	248
MathType	Design Science, Inc.	310
MathWriter	Brooks/Cole Publishing Co.	310
Mavis Beacon Teaches Typing!	Software Toolworks	119
Maxima	Connectix Corp.	286



A Winning Combination!

Whether used alone or together, CheckMark's MultiLedger® and Payroll give you efficient, straightforward, and easy-to-use accounting software. See for yourself why they were selected as MacWorld Editors' Choice.

MACWORLD MW EDITORS' CHOICE

Call (800) 444-9922 today for a free demo disk!

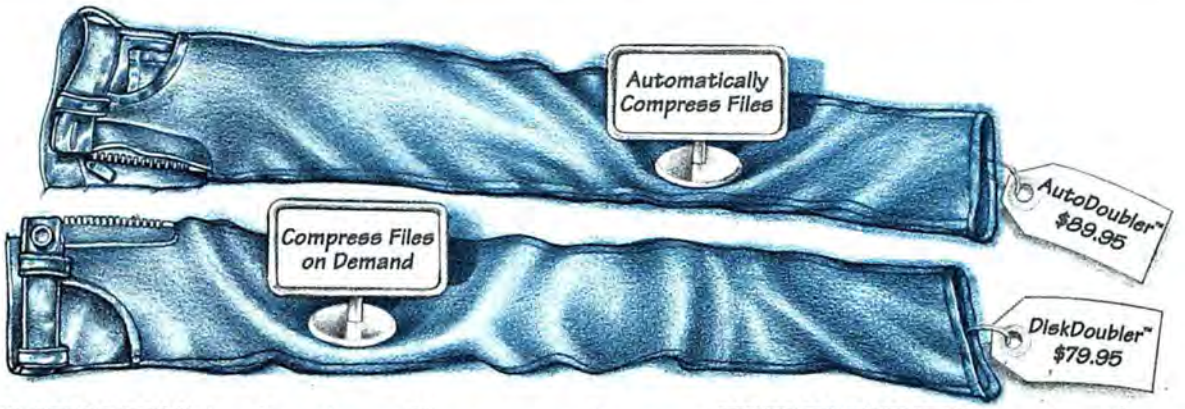
CHECK MARK SOFTWARE INC.

MultiLedger is a registered trademark of CheckMark Software, Inc., 1520 East Mulberry, Suite 200, Fort Collins, Colorado 80524 (303) 484-3541 (303) 484-0429 fax.

CIRCLE 86 ON READER SERVICE CARD.

PRODUCT	COMPANY	Page Number
McGee	Lawrence Productions, Inc.	127
McIntyre	McIntyre Computer Systems	201
MediaMaker	Macromedia, Inc.	199
Meeting Maker	ON Technology, Inc.	223
Mega Drive Mercury 240	Mega Drive Systems	269
MergeWrite	Software Discoveries, Inc.	305
MetaDesign	Meta Software Corp.	225
Metamorphosis Professional	Altsys Corp.	192
Metro ImageBase Electronic Art	Metro ImageBase, Inc.	187
Michael's Draw	Event One	190
Micro Planner Manager	Micro Planning International	225
Micron Xceed IIci	Micron Technology, Inc.	236
MicroNet CPKD-2000	MicroNet Technology, Inc.	269
MicroNet Micro/Optical SB-SMO-1	MicroNet Technology, Inc.	269
MicroNet MR-45	MicroNet Technology, Inc.	269
MicroNet MR-90	MicroNet Technology, Inc.	269
MicroNet MS200	MicroNet Technology, Inc.	253
MicroNet NuPORT-II	MicroNet Technology, Inc.	236
MicroNet SB-1000NP	MicroNet Technology, Inc.	253
MicroNet SBT-1288NP	MicroNet Technology, Inc.	253
MicroPhone II	Software Ventures Corp.	280
MicroRX SE1	MicroMat Computer Systems	286
Microsoft Mail	Microsoft Corp.	215
Microsoft Office CD-ROM	Microsoft Corp.	221
MicroSpeed MacTRAC	MicroSpeed, Inc.	201
Microtech CD600	Microtech International, Inc.	269
Microtech Europa 40	Microtech International, Inc.	254
Microtech N320	Microtech International, Inc.	254
Microtech Nova N1000	Microtech International, Inc.	254
Microtech Nova N120	Microtech International, Inc.	254
Microtech Nova N200	Microtech International, Inc.	254
Microtech OR120	Microtech International, Inc.	269
Microtech OR650	Microtech International, Inc.	269
Microtech R50	Microtech International, Inc.	270

PRODUCT	COMPANY	Page Number
Microtek ScanMaker 1850S	Microtek Lab, Inc.	245
Microtek ScanMaker 600ZS	Microtek Lab, Inc.	245
Microtemp Financial Calculators	Microtemp	248
MIDI Companion	Robert Patterson	205
MindLink	MindLink, Inc.	221
MiniCad+	Graphsoft, Inc.	186
Minitab	Minitab, Inc.	248
miniWriter	Maitreya Design	310
Mirror CD-ROM	Mirror Technologies, Inc.	270
Mirror M40	Mirror Technologies, Inc.	254
Mirror M210	Mirror Technologies, Inc.	254
Mirror MP105	Mirror Technologies, Inc.	254
Mirror MP290	Mirror Technologies, Inc.	254
Mirror PixelView I	Mirror Technologies, Inc.	109
Mirror ProView 20*	Mirror Technologies, Inc.	109
Mirror ProView 24-bit Display System	Mirror Technologies, Inc.	109
Mirror RM42	Mirror Technologies, Inc.	270
Mirror RM600 Optical	Mirror Technologies, Inc.	270
Mission: Starlight	Casady & Greene, Inc.	127
Mission: Thunderbolt	Casady & Greene, Inc.	127
Mitsubishi Diamond Pro 14	Mitsubishi Electronics America	109
Mitsubishi Diamond Pro 37	Mitsubishi Electronics America	109
Mitsubishi G370-10	Mitsubishi Electronics America	232
Mitsubishi International CHC-S445	Mitsubishi International Corp.	232
Mitsubishi S340-10	Mitsubishi Electronics America	232
Mobile Computer 400	Psion, Inc.	133
Mobius One Page Display	Mobius Technologies	109
MockPackage Plus Utilities	CE Software, Inc.	286
Model-It!	Norris Software Systems	248
ModelShop II	Macromedia, Inc.	193
MORE	Symantec Corp.	199
Mouse Systems A3 Mouse	Mouse Systems	201
Mouse Systems Little Mouse	Mouse Systems	201
MouseStick	Advanced Gravis Computer Technology Ltd.	201



SOMEONE'S trying to sell you pants, one EXPENSIVE leg at a time.

For the price of a pair of blue jeans (about $35), StuffIt SpaceSaver™ does everything that the competition claims to do–except they charge more than 'Doubler' the price.

SpaceSaver consistently saves you more space in less time with absolutely no hassles. Independent tests prove it. So do the reviews.

StuffIt SpaceSaver also gives you access to millions of compressed files available through online services, including .sit and .cpt files. In fact, CompuServe and America Online have made StuffIt their approved standard.

Contact your favorite outlet or call us now at 408-761-6200 to order StuffIt SpaceSaver, the industry-standard 'shrink-to-fit' leader.



StuffIt SpaceSaver is also included in every package of our best-selling StuffIt Deluxe 3.0. StuffIt SpaceSaver and StuffIt Deluxe are trademarks of Aladdin Systems, Inc. AutoDoubler and DiskDoubler are trademarks of Fifth Generation Systems, Inc. All other names are trademarks of their respective holders.

CIRCLE 209 ON READER SERVICE CARD.

PRODUCT	COMPANY	Page Number
MouseTouch	Information Strategies, Inc.	201
Mr. File	Softways	296
Mr. SoundFX	Prosonus	205
MugShot	Mi Concepts	286
Multi-Ad Creator	Multi-Ad Services, Inc.	195
Multi-user Desktop Accounting (MDA)	Logisoft, Inc.	131
MultiClip	Olduvai Corp.	184
MultiDisk	ALSoft, Inc.	298
MultiLedger	CheckMark Software, Inc.	131
MultiPort	Silicon Valley Bus Co.	215
MUSE	Occam Research Corp.	248
Music Mouse	Dr. T's Music Software, Inc.	205
Music Writer	Pygraphics	205
MusicProse	Coda Music Software	205
Mutant Beach	Inline Design	127
My Time Manager	MacShack Enterprises	223
MyAdvancedLabelDesigner	MySoftware Company	305
MyAdvancedMailList	MySoftware Company	223
myDiskLabeler	Williams & Macias, Inc.	305
NanoDISK	Technology Works, Inc. (TechWorks)	288
National Semiconductor EtherNODE•16 NB-T	National Semiconductor	215
National Semiconductor EtherNODE•32 SE/30-T	National Semiconductor	215
NEC Colormate PS Model 80	NEC Technologies, Inc.	232
NEC Intersect CDR-72	NEC Technologies, Inc.	270
NEC Intersect CDR-73M	NEC Technologies, Inc.	270
NEC MultiSync 4FG	NEC Technologies, Inc.	109
NEC MultiSync 6FG	NEC Technologies, Inc.	109
NEC Silentwriter 2 Model 90	NEC Technologies, Inc.	232
NEC Silentwriter LC 890XL	NEC Technologies, Inc.	232
NEC Silentwriter Model 95	NEC Technologies, Inc.	232
Neotech Image Grabber and Colour Adapter Module	Advent Computer Products, Inc.	109
NetDistributor Pro	Trik, Inc.	215
NetMinder Ethernet	Neon Software, Inc.	215
NetMinder LocalTalk	Neon Software, Inc.	215
NetModem/E	Shiva Corp.	280
NetOctopus	MacVONK, Inc.	216
NetStream	PCPC (Personal Computer Peripherals Corp.)	298
NetWare for Macintosh	Novell, Inc.	216
Network Resources Mac1000TP	Network Resources Corp. (NRC)	216
Network SuperVisor	CSG Technologies	216
Newer fx/Overdrive	Newer Technology	236
NewGen Personal Series Turbo PS/300P	NewGen Systems Corp.	232
NewGen Personal Series Turbo PS/400P	NewGen Systems Corp.	232
NewLife Accelerator!	NewLife Computer Corp.	236
Nexpert Object	Neuron Data, Inc.	239
Nightshift	TTI (Transitional Technology, Inc.)	298
NightWatch	Kent Marsh Ltd.	308
Nikon LS-3510AF	Nikon Electronic Imaging	245
NISCA Niscan Spectra Mac	NISCA, Inc.	245
Nissei Sangyo Hitachi 15 MVX	Nissei Sangyo America - Hitachi	109
Nisus	Nisus Software, Inc.	310
Nolo's Living Trust	Nolo Press	223
Nolo's Personal Record Keeper	Nolo Press	223
Norton Utilities for the Macintosh	Symantec Corp.	298
Novy Systems Quik30/Plus-33MHz	Novy Systems	236
Now Up-To-Date	Now Software, Inc.	223
Now Utilities	Now Software, Inc.	288
NRC MultiGate Hub	Network Resources Corp. (NRC)	216
Number Munchers	MECC	119
NumberMaze	Great Wave Software	119
Numonics GraphicMaster	Numonics Corp.	201
Numonics GridMaster	Numonics Corp.	201
Nutmeg 19" Mono Display	Nutmeg Systems	110
Nutmeg N19Csi	Nutmeg Systems	110
Nutrition Stack, The	Big Byte Software	223
Nuts & HyperBolts	Sterling Swift Software	122
Océ G5241-PS	Océ Graphics USA, Inc.	232
Ocean Tidalwave 650	Ocean Microsystems, Inc.	270
Ocean Vista 128	Ocean Microsystems, Inc.	270
OffLine	SNA, Inc.	298
Ofoto	Light Source	184
Ogre	Origin	127
Oids	Software Heaven (FTL Games)	127
Okidata OL-830	Okidata	232
Okidata OL-840	Okidata	232
OMI CDP-1B CD-ROM	Optical Media International (OMI)	270
OmniPage Direct	Caere Corp.	312
OmniPage Professional	Caere Corp.	312
OmniProof	Caere Corp.	312
Omnis Seven	Blyth Software, Inc.	105
On Cue	ICOM Simulations, Inc.	298
On Location	ON Technology, Inc.	298
One Shot Worksheet	Baseline Publishing, Inc.	249
Optical Access International CM 231	Optical Access International	270
Optima Concorde 1050	Optima Technology	254
Optima DisKovery 128MO	Optima Technology	270
Optima DisKovery 200	Optima Technology	254
Optima DisKovery 88R	Optima Technology	270
Optima MiniPak 200	Optima Technology	254
Optima MiniPak 310	Optima Technology	254
Oracle for Macintosh	Oracle Corp.	216
Orange Micro Grappler 9 Pin	Orange Micro, Inc.	232
Orange Micro Grappler IIsp	Orange Micro, Inc.	232
Orange Micro Grappler LS	Orange Micro, Inc.	233
Orchid MacSprint II	Orchid Technology	236
Orchestra: The Instruments Revealed, The	Warner New Media	205
Orchid OrchidFAX	Orchid Technology	280
Org Plus for Macintosh	Banner Blue Software	221
Otzar Plus	Davka Corp.	242
Outbound Notebook 2030	Outbound Systems, Inc.	133
Outbound Outrigger Intelligent Monitor	Outbound Systems, Inc.	110
PacerForum	Pacer Software, Inc.	216
PacerShare	Pacer Software, Inc.	216
PageBrush Professional	Mitsubishi International Corp. (San Francisco office)	245
PageMaker	Aldus Corp.	196
Painter	Fractal Design Corp.	198
Panasonic KX-P4455	Panasonic	233
Panasonic PanaSync C1395	Panasonic	110
Panorama II	ProVUE Development, Inc.	105
Parameter Manager Plus	BlackHawk Technology	249
Pathworks for Macintosh	Digital Equipment Corp.	216
Payroll	CheckMark Software, Inc.	131
PC Scan 3000	DEST	245
pcMACTERM II	Dynamic Microprocessor Associates (DMA)	216
PCPC DATStream	PCPC (Personal Computer Peripherals Corp.)	270
PCPC II 16" Color	PCPC (Personal Computer Peripherals Corp.)	110
PCPC II 19" Color	PCPC (Personal Computer Peripherals Corp.)	110
PCPC MacBottom 105	PCPC (Personal Computer Peripherals Corp.)	254
PCPC MacBottom 50	PCPC (Personal Computer Peripherals Corp.)	254
PCPC Shadowgraph	PCPC (Personal Computer Peripherals Corp.)	110
PDQ! (Page Designs Quick!)	PAR Publishing	196
Peachtree Accounting for Macintosh	Peachtree Software	131
Peachtree Insight Accounting for Macintosh	Peachtree Software	131
Peacock	Cyan, Inc.	239
Performer	Mark of the Unicorn, Inc.	205
Personal Press	Aldus Corp.	196
Personal Writer PW 10SL	Personal Writer, Inc.	201
Personality	Baseline Publishing, Inc.	288
Perspect Nexus fx	Perspect Systems, Inc.	236
Persuasion	Aldus Corp.	199
PERT & Critical Path Techniques	Lionheart Press, Inc.	225
PhoneNET Connector Series 300	Farallon Computing, Inc.	216
PhoneNET Liaison	Farallon Computing, Inc.	217
PhonePro	Cypress Research Corp.	280
Photon Paint	MicroIllusions, Inc.	198
Photoshop	Adobe Systems	198
Physics	Broderbund Software, Inc.	122
PickTure	Right Answers, Inc.	298
Picture It!	Penton Overseas	242
PictureBook	Loop Software	184
PicturePress	Storm Technology, Inc.	298
Pinnacle Micro REO-1303	Pinnacle Micro, Inc.	270
Pinnacle Micro REO-6500	Pinnacle Micro, Inc.	270
Pinnacle Micro REO-650	Pinnacle Micro, Inc.	274
Pipe Dream	Lucasfilm Ltd., Games Division	127
Pivotal ModularHub	Pivotal Technologies, Inc.	217
Pixar Typestry	Pixar, Inc.	193
PixelPaint	SuperMac Technology	198
PixelPaint Professional	SuperMac Technology	198
PlayMaker Football	Broderbund Software, Inc.	127
Playroom, The	Broderbund Software, Inc.	122
PLI DAT Drive	PLI (Peripheral Land, Inc.)	274
PLI Infinity 40 Turbo	PLI (Peripheral Land, Inc.)	274

The Natural Leaders.



Fractal Design Corporation is pioneering new areas of computer graphics and imaging, and creating innovative, exciting new tools for you. Leading the innovations is our exclusive *Natural Media*™ technology, which provides, for the first time, the look and feel of traditional art tools.

Fractal Design Painter® for both Macintosh® and Windows™, offers dozens of natural-media art tools and paper textures. Now even traditional artists can feel at home on the computer.

Fractal Design Sketcher™ offers professional-quality, natural-media painting tools and image retouching for grayscale.

Like Painter, Sketcher acts like real pencils, real brushes, real chalk and real paper grains.

ColorStudio® & Shapes™ for Macintosh created an entirely new category of software, and continues to break new ground in image retouching and color prepress. Shapes is a complete PostScript® illustration environment...and it's built right in.

When you buy a Fractal Design product, you enlist a partner whose products are natural leaders in their fields—so you can be a natural leader in yours.

Look for Fractal Design products at all leading software resellers, or call Fractal Design at 408 688-8800.

The Next Generation of Graphics Software...Today.

FRACTAL DESIGN CORPORATION

© 1992 Fractal Design Corporation. All rights reserved. ColorStudio and Fractal Design Painter are registered trademarks, and Fractal Design Sketcher, natural media and Shapes are trademarks of Fractal Design Corporation. Macintosh is a registered trademark of Apple Computer, Inc. Windows is a trademark of Microsoft Corporation. PostScript is a registered trademark of Adobe Systems, Inc.

Fractal Design Corporation • P.O. BOX 2380 • Aptos, CA 95003 • 408 688 8800

CIRCLE 67 ON READER SERVICE CARD.

PRODUCT	COMPANY	Page Number
PLI Infinity 88	PLI (Peripheral Land, Inc.)	274
PLI Infinity Optical 5.25" Drive	PLI (Peripheral Land, Inc.)	274
PLI Infinity Optical 3.5" Drive	PLI (Peripheral Land, Inc.)	274
PLI Jukebox Junior	PLI (Peripheral Land, Inc.)	274
PLI PL 1.2 Gigabyte	PLI (Peripheral Land, Inc.)	254
PLI PL 40 Turbo	PLI (Peripheral Land, Inc.)	254
PLI PL CD-ROM	PLI (Peripheral Land, Inc.)	274
PLI PL200 Turbo Quantum	PLI (Peripheral Land, Inc.)	257
PLI PL320F Turbo	PLI (Peripheral Land, Inc.)	257
PLI Quantum 105	PLI (Peripheral Land, Inc.)	257
PLI QuickSCSI	PLI (Peripheral Land, Inc.)	236
PM1.44 Floppy Drive	Pacific Microelectronics	274
Point of View	Scholastic Software	242
Polaroid CS-500 Digital Photo Scanner	Polaroid Corp.	245
Portable Attache	EDC	133
PostShow	Lincoln & Co.	240
PowerDraw	Engineered Software	186
POWERicons	Magic Software, Inc.	298
PowerMacros for the Excel User	Individual Software, Inc.	249
PowerPlay	Cognos Corp.	249
PowerPoint	Microsoft Corp.	200
PowerPort/Gold	Global Village Communications, Inc.	280
PowerPort/Silver	Global Village Communications, Inc.	280
PowerPrint	GDT Softworks, Inc.	305
Practica Musica	Ars Nova Software	205
Practical Peripherals PM14400FXSA	Practical Peripherals, Inc.	280
Precision	Innovative Systems, Inc.	186
Preditor	Evatec	240
PrePrint	Aldus Corp.	184
Presenter Professional	VIDI (Visual Information Development, Inc.)	193
Prince of Persia	Broderbund Software, Inc.	127
Princeton MultiView II	Princeton Publishing Labs, Inc.	110
Princeton Ultra 1400	UDSI (Ultimate Display Solutions, Inc.)	110
Print Central	Compumation, Inc.	217
PrintBar	Bear Rock Technologies	305
Printware 720 IQ Laser Imager	Printware	233
Pro-Cite	Personal Bibliographic Software, Inc.	105
Procom MCD 650	Procom Technology, Inc.	274
Procom MD 320	Procom Technology, Inc.	257
Procom MDAT1300/M	Procom Technology, Inc.	274
Procom MEOD128	Procom Technology, Inc.	274
Procom MEOD650	Procom Technology, Inc.	274
Procom MRD 88	Procom Technology, Inc.	274
Professional Photography Collection, Volume 1	discimagery	187
ProfitAbility Professional	Wetzel & Co., Inc.	131
Prograph	TGS Systems Ltd.	240
Project	Microsoft Corp.	225
Project Billing	Satori Software	132
Project Scheduler	Scitor Corp.	225
Prometheus MaxFax	Prometheus Products, Inc.	282
Prometheus ProModem 2400M Plus	Prometheus Products, Inc.	282
PROmotion	Motion Works, Inc.	193
Proxima Ovation	Proxima Corp.	110
PServe	COPS (CoOperative Printing Solutions), Inc.	217
PSI Integration COMstation Five	PSI Integration	282
Publish It! Easy	Timeworks, Inc.	196
Publishing Packs	Adobe Systems	192
Pyro!	Fifth Generation Systems	288
QMS ColorScript 100 Model 10	QMS, Inc.	233
QMS PS-2210	QMS, Inc.	233
QMS PS-410	QMS, Inc.	233
QMS PS-810	QMS, Inc.	233
QMS PS-810 turbo	QMS, Inc.	233
QMS PS-820 turbo	QMS, Inc.	233
QMS PS-815 MR	QMS, Inc.	233
QPID	GT Omnicom, Inc.	221
QTBackup with QTShare	Tecmar, Inc.	298
QuarkXPress	Quark, Inc.	196
QUED/M	Nisus Software, Inc.	310
QuickDEX II	Casady & Greene, Inc.	223
Quicken	Intuit, Inc.	132
QuickEnvelope	GCC Technologies, Inc.	305
QuicKeys	CE Software, Inc.	288
QuickLetter	Working Software, Inc.	305
QuickMail	CE Software, Inc.	217
QuickShare	SeeColor Corp.	217
QuickTools	Advanced Software, Inc.	288
Quintus MacProlog	Quintus Corp.	240

PRODUCT	COMPANY	Page Number
Qume CrystalPrint Express	Qume Corp.	233
Qume CrystalPrint Publisher	Qume Corp.	233
Racal InterLan MacConnect EN	Racal InterLan	217
Racal InterLan MacConnect NIA310-10BT	Racal InterLan	217
Racal-Datacom RMD 3222	Racal-Datacom	282
Radar	Sonic Systems, Inc.	217
Radius Color Pivot LC	Radius, Inc.	110
Radius Color Pivot si	Radius, Inc.	112
Radius Full Page Display	Radius, Inc.	112
Radius Pivot for Built-in Video	Radius, Inc.	112
Radius PowerView	Radius, Inc.	112
Radius PrecisionColor 24x	Radius, Inc.	112
Radius PrecisionColor Display/20	Radius, Inc.	112
Radius Rocket	Radius, Inc.	236
Radius Rocket 33	Radius, Inc.	237
Radius Two Page Display/19	Radius, Inc.	112
Radius Two Page Display/21	Radius, Inc.	112
RadiusTV	Radius, Inc.	112
RagTime	MacVONK, Inc.	196
Railroad Tycoon	MicroProse Software	127
RasterOps 24MxTV	RasterOps	112
RasterOps 24STV	RasterOps	112
RasterOps 24XLi	RasterOps	112
RasterOps 24XLTV	RasterOps	112
RasterOps MediaTime	RasterOps	114
RasterOps Video Expander	RasterOps	114
RasterOps VideoTime	RasterOps	114
Ray Dream Designer	Ray Dream, Inc.	194
Read-It! O.C.R. Pro	Olduvai Corp.	312
ReadRight for Macintosh	OCR Systems	312
Ready,Set,Go!	Manhattan Graphics Corp.	196
RealTech Laser	Hardware That Fits	233
RecordHolder Plus	Software Discoveries, Inc.	105
Red Baron	Dynamix, Inc.	127
Redux	Inline Design	298
Relational Objex	SoftStream International, Inc.	190
Relax 1.2 Gig Tape Vista	Relax Technology, Inc.	274
Relax Hard Plus 1.0 Gigabyte	Relax Technology, Inc.	257
Relax Ikegami Trinitron	Relax Technology, Inc.	114
Relax Mobile 44 Vista	Relax Technology, Inc.	274
Relax Optical 600 Plus	Relax Technology, Inc.	274
Relax Vista 88R	Relax Technology, Inc.	276
Relax/Pioneer DRM-600	Relax Technology, Inc.	276
Relisys RE-1422	Relisys	114
Remember?	David Warker	224
Remote/WakeUp	Farallon Computing, Inc.	282
Rendezvous	PMC Telesystems, Inc.	224
Reports	Nine To Five Software	105
Resolve	Claris Corp.	249
Resorcerer	Mathemæsthetics	240
RésumExpert	A Lasting Impression	311
Retrieve It!	MVP Software	298
Retriever II	Exodus Software	106
Retrospect	Dantz Development Corp.	300
Retrospect Remote	Dantz Development Corp.	300
Reunion	Leister Productions	224
RightWriter	QUE Software	313
Rise of the Dragon	Sierra On-Line, Inc.	127
@RISK	Palisade Corp.	249
Rite of Spring, The	The Voyager Company	205
Rival	Inline Design	308
RoboSport	Maxis	128
Rodime Cobra 1000e	Rodime Systems, Inc.	257
Rodime Cobra 100e	Rodime Systems, Inc.	257
Rodime Cobra 210e	Rodime Systems, Inc.	257
Rodime Cobra 330e	Rodime Systems, Inc.	257
Rodime R45 Plus	Rodime Systems, Inc.	276
Rodney's Wonder Window	Voyager Company	128
Roger Ebert's Movie Home Companion	Quanta Press	242
Sales and Marketing Forecasting Toolkit	Palo Alto Software	132
SAM (Symantec AntiVirus for Macintosh)	Symantec Corp.	308
Sampo AlphaScan Plus KDM 1466A	Sampo America	114
Samtron SC428V	Samtron Displays, Inc.	114
Saturae Academy 240Z/ro	Saturae Corp.	276
Saturae Proline 200	Saturae Corp.	257
SBT Database Accounting Library: Series Six Plus	SBT Corp.	132
Schedule+	Microsoft Corp.	224
ScheduleMaker	Craig Systems	226

THE AGFATYPE™ CD-ROM VERSION 3.1 THE BEST TYPE CD WITH THE ADOBE® LIBRARY, AGFA POSTSCRIPT® LIBRARY AND MORE.

3.1

There's no Type CD in the industry that compares with the AGFATYPE CD-ROM.

Features:

- On-line catalog lets you view over 2000 Typefaces
- Adobe, Agfa PostScript and TrueType™ Libraries
- Easily unlock fonts with a single call to our toll-free customer service hotline
- 7 MB Shareware
- Multimedia Type Tutorials
- Logos & Symbols library (over 11,000 characters)
- Free Typeface Included: Garth Graphic
- New Agfa software – KernEdit™ & TypeChart™ Type Applications
- Multilingual user interface

Prices listed are for USA only.

Also available through Ingram Micro and Tech Data.

Or call Agfa for the authorized dealer near you

1-800-424-TYPE



Worldwide acclaim for the leading Type CD-ROM publishing toolkit

• • • • •

"Agfa is the best of the new breed of unlockable CD-ROMs."
MacUser, March 1992

• • •

"Agfa's CD-ROM is chock-full of goodies and makes a complete package. Put simply, AGFATYPE is a good deal — and its interactive, on-line material makes it fun to use."
Publish, July 1992

• • •

"Agfa is one of the few CD-ROM vendors to make use of the medium's wide open spaces, and should be applauded."
Prepress (U.K.), May 1992

• • •

"All in all, the new AGFATYPE CD-ROM is hard to fault. The icing on the cake is more than 7 MB of public domain and shareware utilities. . ."
MacWorld (U.K.), March 1992

• • • • •

AGFA

$99

Get the AGFATYPE CD-ROM V3.1 with 20 exclusive Agfa headline typefaces unlocked plus one Logos and Symbols font of your choice. An $830 retail value.

ORLANDO
PL™ Benguiat Frisky
Metropolis
TC Jasper
Bernhard Modern
PL Davison Americana
Quirinus Bold
PL Futura Maxi Demi
Modern Twenty
TC Europa Bold
PL Futura Maxi Light
Siena Black
SECTION BOLD CONDENSED
PL Behemoth Semi-Cond.
WOODBLOCK
Egiziano Black
PL Westerveldt
Stratford Bold
PL Tower Condensed
Beton Extra Bold

Get the best Type CD, Toshiba's best CD drive, AND 20 free headline faces.

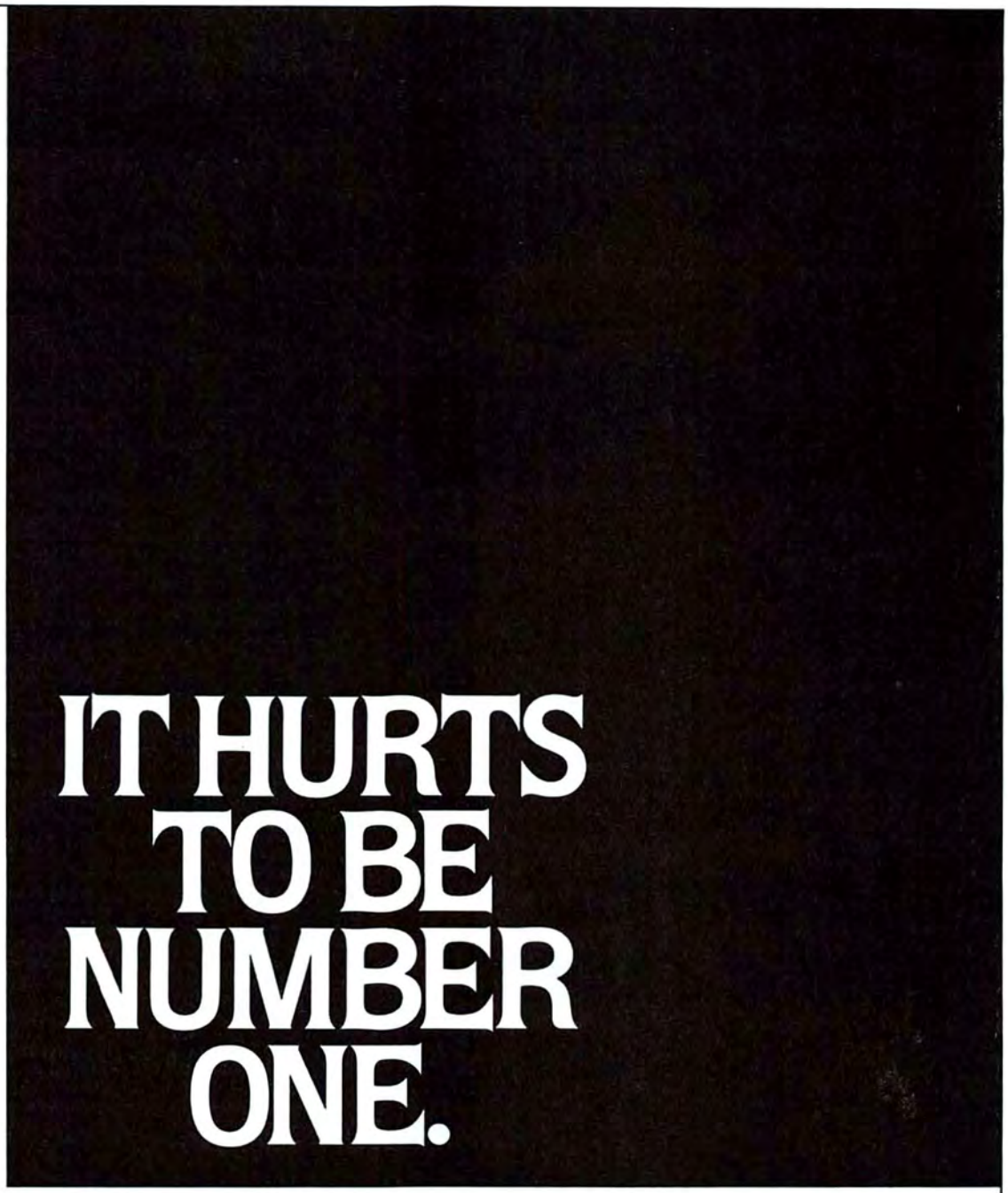
A $1,920 value for only... **$695**

AGFA, AgfaType, and the Agfa rhombus are registered trademarks of Agfa Gevaert, A.G. KernEdit, KernData, and TypeChart are trademarks of Miles Inc. All other trademarks are the properties of their respective owners.

CIRCLE 222 ON READER SERVICE CARD.

PRODUCT	COMPANY	Page Number
Screen Gems	Inline Design	288
Screenshot	Baseline Publishing, Inc.	184
ScriptExpert	Components Software	240
Sculpt 3D	Byte by Byte Corp.	194
Sculpt 4D	Byte by Byte Corp.	194
Seiko 14" Color (CM 1445)	Seiko Instruments USA, Inc.	114
Seiko CH-5504	Seiko Instruments USA, Inc.	233
Seiko ColorPoint PS Model 4	Seiko Instruments USA, Inc.	233
Seiko ColorPoint PSX Model 14	Seiko Instruments USA, Inc.	234
Seiko Personal ColorPoint PS	Seiko Instruments USA, Inc.	234
Seiko Smart Label Printer Plus	Seiko Instruments USA, Inc.	234
Send Express	Gizmo Technologies	217
Sensible Grammar	Sensible Software, Inc.	313
SequeLink	TechGnosis, Inc.	217
Service Industry Accounting	Brown-Wagh Publishing	132
Set Clock	Jim Leitch	221
Shakespeare	Creative Multimedia Corp.	243
Sharp JX-730 Color Ink Jet	Sharp Electronics Corp.	234
Sherlock Holmes, Consulting Detective	ICOM Simulations, Inc.	128
ShiftWorker	Expert Systems, Inc.	226
Shinko CHC Series	Mitsubishi International Corp.	234
Shiva EtherGate	Shiva Corp.	217
Shiva EtherPort II	Shiva Corp.	218
Shiva EtherPort IIT	Shiva Corp.	218
Shiva EtherPort SE	Shiva Corp.	218
Shiva EtherPort SE/30	Shiva Corp.	218
Shiva FastPath	Shiva Corp.	218
Shiva TeleBridge	Shiva Corp.	218
Shiva/Eagle Hublet	Eagle Technology Corp.	217
Shortcut	Aladdin Systems, Inc.	300
Showplace	Pixar, Inc.	194
Shredder	DLM Software, Inc.	300
Sigma Designs ColorMAX 8/24	Sigma Designs, Inc.	114
Sigma Designs L—*View Multi-Mode	Sigma Designs, Inc.	114
Sigma Designs PageView MultiMode	Sigma Designs, Inc.	114
Sigma Designs Power Portrait	Sigma Designs, Inc.	114
Sigma Designs SilverView	Sigma Designs, Inc.	114
Silverlining	La Cie Ltd.	300
SimCity	Maxis	128
SimEarth	Maxis	128
Sixty Eight Thousand dash 30fx	Sixty Eight Thousand, Inc.	237
Sky Shadow	Casady & Greene, Inc.	128
Smart Alarms 3.0 and Appointment Diary 3.1	JAM Software	224
Smartcom II	Hayes Microcomputer Products, Inc.	282
SmartScrap and The Clipper II	Portfolio Systems, Inc.	184
Smoothie	Michael Peirce Software	198
SnapBack	Golden Triangle Computers, Inc.	300
SnapJot	Wildflower Software	184
SoftPC - Entry Level	Insignia Solutions	218
Software Bridge/Mac	Systems Compatibility, Inc.	300
Solitaire Royale	Spectrum HoloByte	128
Sonar Bookends	Virginia Systems, Inc.	311
Sonic Systems Ether TwP/II	Sonic Systems, Inc.	218
Sonic Systems Ether TwP/LC	Sonic Systems, Inc.	218
Sonic Systems Ether TwP/SE	Sonic Systems, Inc.	218
Sony CPD-1304	Sony Computer Peripherals Co.	116
Sony RVP-6000Q	Sony Business and Professional Group	116
Sophisticated Circuits PowerKey	Sophisticated Circuits	201
Sophisticated Circuits PowerPad	Sophisticated Circuits	201
Sound Manager Package	Riccardo Ettore	206
SoundEdit Pro	Macromedia, Inc.	206
SoundMaster	Bruce Tomlin	206
Space Quest I	Sierra On-Line, Inc.	128
Spaceship Warlock	Reactor, Inc.	128
Spark Cordless Mouse	Spark International	201
SPECtacular	Omega Systems	192
Spectre	Velocity Development	128
Speedometer	Scott Berfield	288
Spelling Coach Professional	Deneba Software	313
Spellswell	Working Software, Inc.	313
Spelunx and the Caves of Mr. Seudo	Brøderbund Software, Inc.	128
Spinnaker PLUS	Spinnaker Software Corp.	240
Sports Illustrated CD-ROM Sports Almanac	Warner New Media	243
Springboard Publisher II	Spinnaker Software Corp.	196
Sprout!	Abracadata Ltd.	190
SPSS for the Macintosh	SPSS, Inc.	249
Spyglass Dicer	Spyglass, Inc.	249

PRODUCT	COMPANY	Page Number
Spyglass Transform	Spyglass, Inc.	249
SQL*Net for Macintosh	Oracle Corp.	218
Star Fleet I: The War Begins!	Interstel Corp.	128
StarGROUP Server for Macintosh	AT&T Network Systems	218
State Data	DataDisc International	243
Status*Mac	ON Technology, Inc.	218
StatView	Abacus Concepts, Inc.	249
StatView SE + Graphics	Abacus Concepts, Inc.	250
STELLA II	High Performance Systems, Inc.	226
Stepping Out II	Berkeley Systems, Inc.	288
Storage Dimensions Data Cannon PDS/FX	Storage Dimensions, Inc.	237
Storage Dimensions MacinStor 1020-S1	Storage Dimensions, Inc.	257
Storage Dimensions MacinStor 205	Storage Dimensions, Inc.	257
StrataType 3d	Strata, Inc.	194
StrataVISION 3d	Strata, Inc.	194
Strategic Conquest	Delta Tao Software, Inc.	129
Stratego: The Computer Game	Spectrum HoloByte	129
Streamline	Adobe Systems	190
Studio Session	Bogas Productions	206
Studio Vision	Opcode Systems, Inc.	206
Studio/1	Electronic Arts	198
Studio/32	Electronic Arts	198
Studio/8	Electronic Arts	198
StuffIt Deluxe	Aladdin Systems, Inc.	300
StuffIt Lite	Aladdin Systems, Inc.	300
Stylist	SNA, Inc.	311
Suitcase II	Fifth Generation Systems	288
SUM II (Symantec Utilities for Macintosh)	Symantec Corp.	300
Summagraphics SummaSketch II	Summagraphics Corp.	201
Sumo RSSM600-B	Sumo Systems	276
Sumo SS 50 Removable	Sumo Systems	276
Sun Clock	MLT Software	243
SunTOPS	Sitka Corp.	218
Super 3D	Aldus Corp.	194
Super Librarian	Pixel Publishing	206
Super Tetris	Spectrum HoloByte	129
SuperANOVA	Abacus Concepts, Inc.	250
SuperCard	Aldus Corp.	240
SuperClock!	Steve Christensen	221
SuperDisk!	Alysis Software Corp.	300
SuperGlue II	Portfolio Systems, Inc.	288
SuperLaserSpool	Fifth Generation Systems	305
SuperMac 19" Dual-Mode Spectrum/8•24 PDQ si	SuperMac Technology	116
SuperMac 19" Platinum Display	SuperMac Technology	116
SuperMac 19" SuperMatch Spectrum/8 LC	SuperMac Technology	116
SuperMac 21" SuperMatch Spectrum/8 si	SuperMac Technology	116
SuperMac (Hitachi) 19"	SuperMac Technology	116
SuperMac (Hitachi) 21"	SuperMac Technology	116
SuperMac (Sony) 19"	SuperMac Technology	116
SuperMac Spectrum/24 PDQ Plus	SuperMac Technology	116
SuperMac Thunder/24	SuperMac Technology	116
SuperPaint	Aldus Corp.	198
Supra FAXModem V.32bis	Supra Corp.	282
Surgeon 3: The Brain	ISM, Inc.	129
Swing Shift	Computed Designs, Inc.	226
Switchboard	DataDesk International (Prometheus Products)	201
Swivel 3D Professional	Macromedia, Inc.	194
SwivelArt	Macromedia, Inc.	187
SwivelMan	Macromedia, Inc.	194
Synchronicity	Visionary Software, Inc.	129
SYSTAT for the Macintosh	Systat, Inc.	250
Tactician 2.0	Tactics International	106
Take Control of Cholesterol	Lifestyle Software Group	224
Talking Reader Rabbit	The Learning Co.	122
TalkManage	Distributed Technologies Corp.	218
TalkSpy	Distributed Technologies Corp.	218
Tamarack ArtiScan 3000C	Artix Technologies, Inc. (Tamarack Telecom)	245
Taste	DeltaPoint, Inc.	311
Taxan Crystal View	Taxan America, Inc.	116
Taxan MultiVision 795	Taxan America, Inc.	118
TechWords	Geocomp	313
TechWorks 3-Meg Static RAM Card	Technology Works, Inc. (TechWorks)	250
TechWorks Cache Card 64	Technology Works, Inc. (TechWorks)	237
TechWorks HubWorks-8	Technology Works, Inc. (TechWorks)	219
TechWorks NuBus 10T/Thin/AAUI Ethernet card	Technology Works, Inc. (TechWorks)	219
Tecmar DATaVault	Tecmar, Inc.	276
Tecmar THS-2200	Tecmar, Inc.	276



37 million Americans suffer from arthritis. That makes it the number one crippling disease in this country. It attacks in over one hundred different forms. Some forms disable. Some disfigure. All of them hurt.

The Arthritis Foundation is the only voluntary health organization fighting arthritis on every front. We sponsor research, self-help programs, and professional and public education.

If you need help, or want to help, contact your local chapter or call 1-800-283-7800.

ARTHRITIS FOUNDATION®

Your Source for Help and Hope®

World's First Dual Capacity –
256MB/128MB Rewritable 3.5" Magneto-Optical Drive
Introductory Offer – only **$1,748**



VISTA V256

- ***Full compatibility*** – Vista V256 reads & writes to ISO Standard 128 MB format cartridges, and a true, non-compressed 256 MB to GZ format cartridges
- ***Reliable*** – features the acclaimed M.O.S.T. mechanism as used in the award-winning Vista V128 3.5" MO drive
- ***Fast*** – transfer rate up to 1.2 MB per second
- ***Economical*** – additional 256 MB cartridges only $89
- ***Versatile*** – Mac and IBM compatibility

Order Direct 800.944.6232

O·C·E·A·N

O·C·E·A·N Microsystems, Inc.
246 Hacienda Avenue
Campbell CA 95008 USA

CIRCLE 205 ON READER SERVICE CARD.

Changing your mailing address?

It's a simple procedure to ensure that your next issue of MacUser will catch up with you as soon as you move.
Please send *your* NEW address PLUS your current mailing label to:

MacUser
P.O. Box 56986
Boulder, Colorado
80322-6986
Please allow up to 60 days for change of address to take place.

Product Index, continued

PRODUCT	COMPANY	Page Number
Tefax RA2110M	Relisys	282
Tektronix ColorQuick	Tektronix, Inc. (G.P.I.D.)	234
Tektronix Phaser II PXi	Tektronix, Inc. (G.P.I.D.)	234
Tektronix Phaser III PXi	Tektronix, Inc. (G.P.I.D.)	234
TeleFinder Pro	Spider Island Software	282
Teleglobe DA3214	Teleglobe, Inc.	282
TeleMagic	Remote Control International	221
TelePort/FAX 9600	Global Village Communications, Inc.	282
Tempo II Plus	Affinity Microsystems Ltd.	288
Tesserae	Inline Design	129
Texas Instruments microLaser Plus PS35	Texas Instruments, Inc.	234
Texas Instruments microLaser Turbo	Texas Instruments, Inc.	234
Texel DM5020	Texel America, Inc.	276
TextPert	CTA, Inc.	312
TFLX	Magnum Software	282
Theorist	Prescience Corp.	250
theTypeBook	Golden State Graphics (Jim Lewis)	192
Think C	Symantec Corp.	240
THINK Pascal	Symantec Corp.	240
Third Wave 210 MB Hard Drive	Third Wave Computing, Inc.	257
Third Wave 45R	Third Wave Computing, Inc.	276
Third Wave 88 SR	Third Wave Computing, Inc.	276
Third Wave DATadrive 2.0 GB	Third Wave Computing, Inc.	276
ThoughtPattern	Bananafish Software	224
Thunder 7	Baseline Publishing, Inc.	313
ThunderScan Plus	Thunderware, Inc.	246
Thunderware LightningScan 400	Thunderware, Inc.	246
Tidy It Up!	Guy Fiems	290
Tiles	CE Software, Inc.	300
Timbuktu	Farallon Computing, Inc.	219
Timbuktu/Remote	Farallon Computing, Inc.	282
Time Table of History: Science and Innovation	Xiphias	243
TimeMinder	Aatrix Software, Inc.	132
Timeslips III	Timeslips Corp.	132
TMON Professional	ICOM Simulations, Inc.	240
TMS Peripherals Pro210	TMS Peripherals	257
Todd Enterprises TCDR6050	Todd Enterprises	276
TopDown	Kaetron Software Corp.	226
Toshiba XM3201A	Toshiba America Information Systems	276
Total Peripherals Q40X	Total Peripherals, Inc.	257
Total Peripherals TP-44R	Total Peripherals, Inc.	276
Total Systems Gemini 020	Total Systems	237
Total Systems Gemini 030	Total Systems	237
Total Systems Magellan 040	Total Systems	237
Total Systems QuickCache IIci	Total Systems	237
Totem Color Clip Art	Totem Graphics, Inc.	187
TouchBASE	After Hours Software	224
TrafficWatch II	Farallon Computing, Inc.	219
Transparent Language	Transparent Language, Inc.	122
TrashMaster	Utilitron, Inc.	304
Trax	Passport Designs, Inc.	206
Truevision NuVista+	Truevision	118
TScript	TeleTypesetting Co.	305
TTI CTS-4M	TTI (Transitional Technology, Inc.)	276
Tulin A-Hive 88R	Tulin Technology	276
Tulin A-Hive Hard Drive 1GB	Tulin Technology	257
Tulin A-Hive Jr 120	Tulin Technology	258
Tulin Hive Jr 210 MB	Tulin Technology	258
TurboSpool	PLI (Peripheral Land, Inc.)	305
Turbosynth	Digidesign	206
TwinIt	Golden Triangle Computers, Inc.	304
Type!	Broderbund Software, Inc.	122
TypeAlign	Adobe Systems	192
TypeChart	Agfa Division, Miles Inc. (Type Products)	192
TypeReader	ExperVision, Inc.	312
TypeStyler	Broderbund Software, Inc.	192
Typing Instructor Encore	Individual Software, Inc.	122
Typing Tutor IV+	QUE Software	122
Typist Plus Graphics	Caere Corp.	246
UDS Motorola V.3229	UDS Motorola	284
Ultimage/X	GTFS, Inc.	103
UltraPaint	Deneba Software	199
UltraScript for the Macintosh	QMS, Inc.	305
ultraSECURE	usrEZ Software	308
UMAX UC1200S	UMAX Technologies, Inc.	246
UMAX UC630	UMAX Technologies, Inc.	246
UMAX UG630	UMAX Technologies, Inc.	246
UpBeat	Dr. T's Music Software, Inc.	206

Product Index, continued

PRODUCT	COMPANY	Page Number
Upfront	Alias Research, Inc.	195
UR Micro MacCache 64	UR Micro	237
UR Micro MacCache LP32	UR Micro	237
V.I.P. (Visual Interactive Programming)	Mainstay	240
Vantage	Baseline Publishing, Inc.	311
Varityper 1200	Varityper	246
Varityper VT600P	Varityper	234
Varityper VT600W	Varityper	234
VCP 105	VCP Computer Products	258
Ventura Publisher Macintosh Edition	Ventura Software	196
VersaCad	Computervision (Personal CAD/CAM Business Unit)	186
VersaTerm-PRO	Synergy Software	284
Video F/X	Digital F/X, Inc.	118
VideoLogic DVA-4000	VideoLogic, Inc.	118
VideoPaint	Olduvai Corp.	199
VideoQuill	Data Translation	184
VideoSpigot	SuperMac Technology	118
VideoSpigot Pro	SuperMac Technology	118
Vietnam War, The	Regeneration Software	243
View from Earth, The	Warner New Media	243
Virex	Microcom Utilities Product Group	309
Virtual	Connectix Corp.	290
Virtus WalkThrough	Virtus Corp.	195
Vision	Opcode Systems, Inc.	206
Visions	Lifestyle Software Group	224
Vivid Impressions	Casady & Greene, Inc.	187
Voice Navigator II	Articulate Systems	201
Voyager CD AudioStack	The Voyager Company	206
Voyager, the Interactive Desktop Planetarium	Carina Software	243
Wacom SD-510C Cordless Digitizer	Wacom Technology Corp.	201
Wacom SD420E	Wacom Technology Corp.	201
WealthBuilder	Reality Technologies	132
Webster's Ninth New Collegiate Dictionary	Highlighted Data, Inc.	243
Welltris	Spectrum HoloByte	129
WetPaint	Dubl-Click Software, Inc.	187
Where in America's Past Is Carmen Sandiego?	Broderbund Software, Inc.	122
Where in the World Is Carmen Sandiego? (Deluxe Edition)	Broderbund Software, Inc.	122
Where in Time Is Carmen Sandiego?	Broderbund Software, Inc.	122
White Knight	FreeSoft Co.	284
Wholesale 54 105Q	Wholesale 54	258
Wild Things	Language Systems Corp.	241
WillMaker	Nolo Press	224
Wingz	Informix Software, Inc.	250
Word	Microsoft Corp.	311
Word Finder Plus	Microlytics, Inc.	313
Word for Word/Mac	Software Toolworks	304
Word Foreign-Language Dictionaries	Alki Software Corp.	313
Word Wrapper	Open Designs, Inc.	311
WordMaker	New Horizons Software, Inc.	311
WordPerfect	WordPerfect Corp.	311
WordPerfect Office	WordPerfect Corp.	219
WordScan Plus	Calera Recognition Systems	312
Wordtris	Spectrum HoloByte	129
WorkBenchMac	Strawberry Tree, Inc.	103
Works	Microsoft Corp.	221
World Class Fonts!	Dubl-Click Software, Inc.	192
WOS Fund Accounting	WOS Fund Accounting, Inc. (Farallon)	132
WriteNow	T/Maker Co.	311
Writer's Dream Tools	Heizer Software	311
Xante Accel-a-Writer	Xante Corp.	234
XCAL	Trendware Corp.	250
Xyxis XY600RW	Xyxis Corp.	276
Z-Nix Cordless Super Mouse	Z-Nix Company, Inc.	203
Zen and the Art of Resource Editing	Peachpit Press	243
Zoo Friends	David J. Combs	122
Zoom FaxModem V.32bis	Zoom Telephonics, Inc.	284
Zoom Zoom/Modem V.42bis	Zoom Telephonics, Inc.	284
ZTerm	D. P. Alverson Software	284
ZyXEL USA U1496E	ZyXEL USA	284

PORTABLE
DATA STORAGE
MW EDITORS' CHOICE
"Liberty 50-105Q"
BATTERY POWERED DRIVES EXTEND YOUR POWERBOOK BATTERY LIFE!
NEW!
World's Smallest
• Power supply, Charger, and Batteries Built-in
• *No* External Power Bricks
• Elegant State of The Art Compact Design
• Rugged, Fast, and Light
MAC & IBM

• Removable Cartridge Capability
• Plug-n-Play
• Fast SCSI Interface
• Customer Satisfaction GUARANTEED!
120MB with 6 hr. battery and internal charger.
120MB removable cartridges optional.
All Liberty Drives Are Designed With Portability In Mind
Hard drives from 40MB - 2.1GB, 160MB Tape, 2.1GB DAT, 90MB Bernoulli®, 88MB/44MB Syquest®, 128MB & 650MB Magneto Optical, CD-ROM. All drives include an internal power supply.
Liberty Systems
160 Saratoga Ave. Suite 38
Santa Clara, Ca. 95051
(408)983-1127
Fax. (408)243-2885

CIRCLE 22 ON READER SERVICE CARD.

StatView 4.0 Is Here!
StatView 4.0 is the only integrated data analysis and presentation system designed specifically for researchers and analysts.
You don't have to use separate spreadsheet, statistics, graphing, and drawing programs to complete your projects.
To learn more, call Abacus Concepts at 1-800-666-STAT.
U.S. List price $595. Academic discounts are available.
ABACUS CONCEPTS
© 1992 Abacus Concepts, Inc., 1984 Bonita Avenue, Berkeley, CA, 94706-1038. (510) 540-1949, (510) 540-0260 fax. StatView is a registered trademark of Abacus Concepts, Inc. All other brands are trademarks or registered trademarks of their respective holders.

CIRCLE 248 ON READER SERVICE CARD.

COMPETITIVE EDGE FOR COMPUTER PROFESSIONALS

Find Everything You'll Ever Want To Know About Computer Products All In One Place!



IT SAVES TIME AND MONEY

Computer Select helps you make the right purchasing decisions — and avoid costly and time-consuming mistakes. It quickly provides all the information you need to identify, evaluate and select exactly the computer products that meet your particular needs.

- Identify the products that perform specific tasks.
- Compare the performance characteristics of competing products.
- Evaluate the suitability of products to your current operating environments.
- Obtain a wide range of expert opinion concerning each product.
- Keep up with the latest product and technology advances.
- Discover valuable tips and techniques to improve the performance of your existing products.

IT'S CONTINUALLY UPDATED

Computer Select is recognized throughout the industry as the most comprehensive and complete source of computer product information — including software applications, hardware and communications devices. Available on a single CD-ROM, it is constantly being improved and expanded.

To make certain that Computer Select is not only the most complete, but the latest source of product information, subscribers are sent an updated disc every month.

IT'S FAST

Computer Select puts hundreds of publications and tens of thousands of articles right at your desk — right at your finger-tips. But with Computer Select's unique search-and-retrieve program you can get the exact information you need quickly.

Merely type the word or combination of words that describe what you are looking for and the entire database is searched.The information appears on your screen in seconds.

IT'S COMPREHENSIVE

Computer Select gives you immediate access to tens of thousands of product reviews and analyses — an entire year's worth of articles, updated every month. The information comes from leading industry publications such as *PC Magazine, PC Week, InfoWorld, MacUser, LAN Times* and *LAN Technology* -- over 170 in all!

In addition, Computer Select incorporates all the reference information from *Data Sources*, the foremost directory of computer products and companies. It also contains electronic versions of Alan Freedman's *Computer Glossary* and Harry Newton's *Telecom Dictionary*. That means you get:

- 12 months of information from 170 leading computer publications.
- Specs on over 72,000 hardware, software and data communications products.
- Profiles, addresses and phone numbers of 13,000 computer companies.
- Definitions for 11,000 computer and telecommunication terms.

WHO NEEDS IT?

Computer Industry Managers
Purchasing Agents
Information Center Personnel
Hardware and Software Marketers
PC Vendors
MIS/DP Managers
Computer Resellers
Independent Support Companies
Universities and Trade Schools

"In ten minutes, Computer Select can give me sixty pages of in-depth reports on whatever I need to know about — ISDN, SONET, video conferencing or multimedia."
William Tyler, New York Telephone

CALL NOW FOR FREE DEMO DISK

Find out how quickly and easily you can find exactly the computer products you need — call today for a FREE Computer Select demonstration disk. No obligation. No commitment. Tons of information.

1-800-827-7889 ext. 611

COMPUTER LIBRARY

The Fastest Way To Find The Perfect Product



© 1992 Ziff Communications Company. All rights reserved. Computer Select is a registered trademark and Computer Library is a trademark of Ziff Communications Company. Other trademarks mentioned are trademarks of their respective companies

MARKETPLACE MacUser

MarketPlace

The cost-effective buying arena that provides sellers of Macintosh compatible products 3 advertising options: Premier, Classified and BusinessCard to meet their specific advertising goals, reaching 410,000 Macintosh Business Buyers. All sections are set up by product category and offer reader service.

Premier

The four-color showcase that spotlights leading-edge products and services.

336-338

Classified

Flexible-format display advertising that offers diverse sizes plus two and three color options. Section meets dynamic advertising needs for all Macintosh products and services.

339-347

Product Categories

	Premier	Classified
Hardware		
Accelerator Boards	336	
Bar Coding		
CD-Rom		
Communications		
Computer Systems		339
Data Acquisition		
Data Recovery Services		341
Disk Drives		341
Diskettes		341
General		
Input Devices	336	
Insurance		
Memory Upgrades		341,345
Networking		
Peripherals		343
Power Supplies		
Printers		
Scanners		
Security		
Tape Drives		344
Used Equipment		
Software		
Accounting	336	344
Back Up Systems		
Bar Coding	337	344
Business	337	
Business Time Management		
CAD/CAM		344
CD-ROM	338	342
Communications/Networking		
Desktop Publishing		344
Educational		344
Emulation		
Engineering		
Entertainment/Games	338	344
Financial		
Fonts		346
Foreign Languages		
Genealogy		
General		
Government		
Graphics	338	346
Health		
Language Tools		
Legal		
Lottery		
Medical/Dental		
Music/MIDI		
Networking		
Personal Management		
Programming Tools		
Public Domain		347
Real Estate		347
Recreation		
Religion		
Sales Marketing		
Scientific		347
Security		
Shareware		
Statistics		347
Taxes		
Travel/Leisure		347
Utilities		
Miscellaneous		
Accessories	338	347
Books/Catalogues		
Business Opportunities		
Consulting/Programming		
Data Conversion Services		
Desktop Publishing Services	338	
Diskette Copy Services		347
Furniture		
Insurance		
Novelties		
Services/Repair		
Slide Imaging Services		
Supplies		347
Training		347

Ad Sales Information

One Park Avenue, New York, NY 10016
(212) 503-5115 or (800) 825-4ADS

Account Representatives

Ann Faustini (212) 503-5043
CT, DC, DE, FL, GA, MA, MD, ME, NC, NH, NJ, NY, PA, RI, SC, VA, VT, WV

Larry Grella (212) 503-5138
AL, AR, IA, IL, IN, KS, KY, LA, MI, MO, MS, NE, OH, OK, TN, TX, WI, CANADA, OVERSEAS

Thomas P. Koletas (212) 503-5136
Acct. Manager—CT, DC, DE, FL, GA, MA, MD, ME, NC, NH, NJ, NY, PA, RI, SC, VA, VT, WV

Dennis M. Leavey (212) 503-5111
AK, CA (209, 408, 415, 510 707, 800, 805, 916), HI, ID, MN, MT, ND, NV, OR, SD, WA, WY

Laura A. Salerno (212) 503-5140
AZ, CA (213, 310, 619, 714, 818), CO, NM, UT

Central Advertising Staff

Paul Stafford
Vice President, Central Advertising

Paul A. Fusco
Sales Manager

Anne R. Brockinton
Production Director

Nepreil Foster
Advertising Coordinator

Chris Meyer
Production Coordinator

PREMIER

SONNET™ TWINSLOT™ LC

Add An
Accelerator Card
Plus
Video Card
Inside A
Mac LC, LC II, or Performa 400



Includes 2-Slot PDS Adapter Card, Universal 40-Watt Power Supply & Taller Chassis Top...$549.

Sonnet Technologies (714) 261-2800 Fax (714) 261-2461
18004 Sky Park Circle, Suite #260, Irvine, California 92714

CIRCLE 250 ON READER SERVICE CARD

PowerPad Extends Your PowerBook's Keyboard!

On the road or at your desk, PowerPad™ 10-key pad turns your PowerBook into a numeric powerhouse. With function and cursor keys at a touch. And customizable key layout that can match the extended Mac keyboard or a traditional 10-key.



PowerPad's new desk accessory, *10Key Tape*, combines the convenience of a calculator's paper tape with the ability to edit, cut & paste, print, and save. There's also an extra ADB port for adding a mouse or other device. A 24" replaceable cable. And a hard cover that opens to support the pad for easy use. It's the number cruncher's dream—PowerPad. Sugested retail price $129. Call today and give your Mac new powers! 800-827-4669.

SOPHISTICATED CIRCUITS®

19017 120TH AVE. NE SUITE 106 BOTHELL WA 98011
PHONE (206) 485-7979 FAX (206) 485-7172

CIRCLE 251 ON READER SERVICE CARD

HIGH-PERFORMANCE GOOD LOOKS!

That's the start-finish combination you buy with Premier, the dynamite section where your enhanced image fuels top response from Macintosh Business Buyers every month!

MacUser Premier

800-825-4237

Add It On. Then, Add It Up.



Plusware's Numeric Keypad adds efficient numeric input to your PowerBook™ equation.

- 23-key keypad
- 15 programmable function keys
- ADB passthrough port
- weight: 7 oz.; height: 0.6"
- free QuicKeys Lite software
- 30-day, money-back guarantee

For just $129.00, it all adds up to one great value!

+++ BONUS +++
Purchase from Plusware before Dec. 31, 1992 and receive a deluxe PowerBook carrying case (T638L) from Targus - absolutely free!

To order, call toll-free:
1-800-268-7587
(North America)
Tel: (416) 477-0015
Fax: (416) 477-0250

Numeric Keypad for PowerBook
plusware

PowerBook is a trademark of Apple Computer, Inc.

CIRCLE 253 ON READER SERVICE CARD

SHARING SHOULDN'T BE PUZZLING!

A4™

Individual software packages just don't share! But because the underlying philosophy of a thriving business is to share vital resource information, A4 has made it simple.....

4TH DIMENSION® ACCOUNTING

A4 is an integrated system that allows multiple users to link to one common data base. AR, AP, GL PR links, Order Entry, Invoicing, Quotes, Inventory, Purchase Orders, Sales and Financial Reports, Word Processing, Contact and Sales Lead Follow-up, Calendar and Memos!

MultiUser = $1,595 w/ Open Source = $3,595

SOFTEK DESIGN, INC...TELLURIDE, CO...303-728-5252

CIRCLE 254 ON READER SERVICE CARD

MAKE EVERY DOLLAR COUNT



Why pay BIG $$$ for small business accounting software? With ProfitAbility® Professional you can have it all...easy to use full featured software, customizable invoices, and a special low price of $ 99.95 with a 30 day money back guarantee.

ProfitAbility® Professional

$99.95

Call 1 800 635 7849 Visa/MC
Wetzel & Company, Inc.
147 East Rocks Rd
Norwalk, CT 06851

CIRCLE 255 ON READER SERVICE CARD

Bar Code Fonts



"...the people at Bear Rock are flat-out experts on the topic of bar codes and produce products of exceptionally high quality."
– Personal Publishing Magazine 6/91

• Code 39 • UPC/EAN • ISBN • Int 2 of 5 • POSTNET
• Compatible with almost any application
• Bar code readers starting at $395

PrintBar Version 3 Bar Code Fonts
"This is the best product of its kind, and it's reasonably priced too." MacUser, 8/91

Sales 1-800-BEAROCK
(818) 872-0244
FAX
(818) 872-1183

Bear Rock TECHNOLOGIES
4140 Mother Lode Dr. • Shingle Springs, CA 95682

CIRCLE 257 ON READER SERVICE CARD

Protect Your Bottom Line



Complete Systems Start at
$2599

Retailers need now more than ever, the ability to react to consumer buying trends to protect their bottom lines. Tracking past-performances, shrinkage, fast moving items, and customer histories is no child's play for the retailer of the Nineties. POS•IM is the tool you need to protect that bottom line.

POS • IM
Point of Sale • Inventory Management
Ensign Systems, Inc.
(801) 546-1616

CIRCLE 259 ON READER SERVICE CARD

FINALLY, EVERYTHING YOU NEED FOR YOUR BUSINESS IN ONE SOFTWARE PACKAGE...

Introducing –
Transoft Business Manager

- Accounting
- Contact Database
- Word Processing
- Scheduling
- All in One Integrated program.
- Suitable for manufacturing, service and professional companies.

CALL 1-800-949-NINE FOR MORE INFORMATION

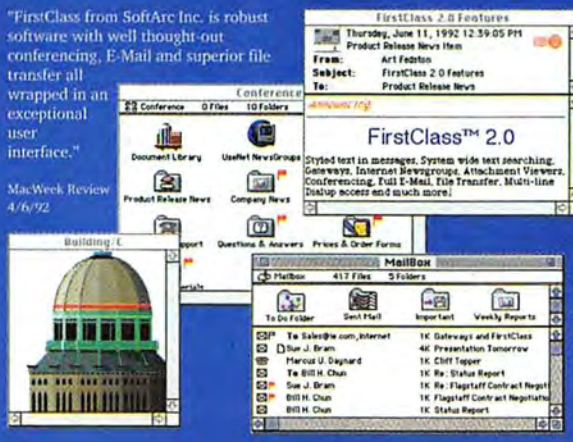
Transoft Business Manager™ is a registered trademark of Transoft® Corporation, © 1992 Transoft Corporation, 31 Parker Way, Santa Barbara, CA 93101

PREMIER

FirstClass™: Groupware

Excellence in group communication

"FirstClass from SoftArc Inc. is robust software with well thought-out conferencing, E-Mail and superior file transfer all wrapped in an exceptional user interface."
MacWeek Review 4/6/92



- Manage projects, publish information, share ideas
- LAN, Multi-line dial in access and Comm Toolbox
- E-Mail, Conferencing, File sharing, Real time chat
- Title & keyword Searching, Document libraries
- Internet Mail/Usenet news access, FAX gateway
- Support groups from 5 to 5000 users with 1 server
- Excellent after sales service and customer support

SoftArc Inc.
805 Middlefield Rd. #102
Scarborough, Ontario
CANADA M1V 2T9

Voice: (416) 299-4723
FAX: (416) 754-1856
FirstClass: (416) 609-2250

CIRCLE 258 ON READER SERVICE CARD

Nautilus℠

The Multimedia Magazine

Experience hundreds of megabytes of information including photographs & sound effects, music & MIDI files, games & shareware, publishing tools & multimedia. Call **1 800 637-3472** to order your **Introduction to Nautilus** CD ROM for only the shipping charge of $4.95. Then, if you like Nautilus, subscribe and receive a new CD ROM mailed to you every month!

On Nautilus, enjoy:
Graphics/Photo Resources
Multimedia Applications
Education Software
Games & Entertainment
Directories & Databases
Reviewed Shareware
Desktop Publishing Tools
Software Demos & Reviews
CD Audio/MIDI/Sound Effects

Mac version also includes "In an Instant℠"
The Instant Software Store on CD ROM!

1 800 637-3472 (Int'l customers: 614 766-3165)
Monday-Friday 8:30 a.m. to 5:30 p.m. EST
VISA/MasterCard accepted.
Available for Macintosh or Windows.

METATEC Corporation

CIRCLE 260 ON READER SERVICE CARD

PREMIER

BodyCello ADULTS ONLY SOFTWARE

Floppy Disk Sets

25 shots of nude women in 8-bit color (for 24-bit place a "B" after part #). + a picture viewer.

2-10 Sampler Set.....$39.95
2-17 Down Unders.....39.95
2-14 Costumes & Special Effects.....39.95

CD-ROM Titles

2-45 House of Dreams.....69.95
Full length QuickTime movie. Rated X

200+ images in 24-bit color. Picture viewer.
2-40 Heavenly Bodies v.1 - nudes...199.00
2-41 Heavenly Bodies v.2 - nudes.199.00
2-43 ExoticaROM 3.0 - exotic art 199.00

'Carina' from Heavenly Bodies v.1

1-800-922-3556

FREE color catalog w/purchase or send $5.00 to: BodyCello P.O. Box 910531 Sorrento Valley, CA 92191

Must be 18 to order

Dealer Inquires Welcome

12

CIRCLE 261 ON READER SERVICE CARD

MagentaCase™ for PowerBooks™ and PowerBook Duos™

- Use your PowerBook in the case!
- Accessory Pockets
- Fully Padded
- Free Lost & Found Registry Listing

Call now to protect your investment!

Magenta Seven
(800) 284-3957

Note: they're not really colored magenta. Call for our latest colors.

Made with pride in USA

CIRCLE 265 ON READER SERVICE CARD

Insanity™ Version 1.0

When your Mac is acting up, or you just want to have some fun – SHOOT IT! *Insanity 1.0* allows you to riddle any application with virtual bullet holes. It's the most entertaining piece of software you can own. Choose from an arsenal of unique weapons ranging from an Uzi to the Moof .45. Don't get mad, get even! $28.95 plus $2.00 S/H. 6.0.5 or above, System 7 compatible.

UV™ 722 cobblestone drive shreveport louisiana 71106
318.868.9944 318.869.2332 fax

CIRCLE 262 ON READER SERVICE CARD

DOUBLECASE PROTECTION
DOUBLE WALL ASSURANCE

LC $199.95
NB-1000S $69.95 W/Shoulder Strap
COMPACT $129.95
NB-4400 $179.95
NB-3400 $149.95

VISA AND MASTERCARD ACCEPTED

(719) 531-5535
1-800-475-0707

DOUBLECASE 5350 North Academy Blvd. Colorado Springs, CO 80918

CIRCLE 266 ON READER SERVICE CARD

Fast Eddie 2.0
Image Compression & Conversion

"...faster, smoother, superslick!" MacUser

8-bit Images Never Looked So Good!
Fast Eddie 2.0 is a revolutionary application for Macintosh that compresses and converts 24-bit images to 8-bit without a loss of image quality.

Converted images can be imported into page-layout software, image manipulation applications, presentation packages—any application that can read and write standard Macintosh file formats.

- Display 24-bit quality on 8-bit Macs
- File size reduced by two-thirds
- NO decompression

$169 Retail

Paradigm Concepts
PO Box 8845 • Santa Fe, New Mexico • 505.888.0112 • Fax 505.888.0114

CIRCLE 263 ON READER SERVICE CARD

Display Signage
Presentation Graphics

Mammoth PRINTS

We now have the technology to take your slide and photos, add text & graphics and make full color prints to 3' x 5' and UP!

- Presentations
- Trade Shows
- Courtroom Graphic
- Marketing Promotions

Digital Graphics Corporation
THE PRESENTATION COMPANY

DG
3401 Denali Street • Suite 101
Anchorage, Alaska 99503
(907) 563-1313 • Fax (907) 561-1543

CIRCLE 267 ON READER SERVICE CARD

The Madson Line
The PowerBook Collection

"The best large-sized case I've seen..." *MacUser*
"...serious design nerds at work...you can't miss with the Madson case for sheer protection, slim size and another worry-free warranty. *MacWorld*
"...top quality everything, materials, workmanship, to the design itself. *MacNews*

Expandable valise pocket

Extruded rubber bottom

Leather handle wrap

#1023 Sac $59.00
#1024 Case $129.00
black, purble, forest green Cordura nylon
#1024B Case $149.00 Ballistics nylon
#1025L Case $249.00 Black leather

1 800 851-1551 Visa, MC, AmEx

CIRCLE 264 ON READER SERVICE CARD

HIGH-PERFORMANCE GOOD LOOKS!

That's the start-finish combination you buy with Premier, the dynamite section where your enhanced image fuels top response from Macintosh Business Buyers every month!

MacUser Premier

800-825-4237

CLASSIFIED

COMPUTER SYSTEMS

Computer Design & Graphic Systems™

MONITORS PRINTERS STORAGE/MISC. CPU'S DISPLAY CARDS SCANNERS

d&g *Specialists in Graphic System Configurations*

Over 2,700 products for the serious... *Graphics User!*

800 741 6227

12734 Kenwood Center • Ft. Myers, FL. 33907 LOCAL: 813-278-3160 • SUPPORT: 813-278-4964 • FAX: 813-278-5161

CIRCLE 306 ON READER SERVICE CARD

Sun Great Prices on Used Macs

Big Savings CPUs Drives Monitor Modem Much More

Super Savings Only $395

Call 1-800-821-3221

Free Catalog

Used Macintosh Computers

While all the others come and go, we keep doing what we do best. We've been refurbishing and selling used computers for ten years. Our quality control department assures you the best machine available for the money—or your money-back—*guaranteed.*

Call Anytime

1-800-821-3221

PO Box 4059
Logan, UT 84323-4059
Fax: (801) 755-3311

Sun Remarketing, Inc.

CIRCLE 307 ON READER SERVICE CARD

MacBYTE

22775 Pacific Coast Hwy, Malibu, CA 90265

Buy • Sell • Trade Macintosh Computers

Cash For Your Mac or Peripheral
Low & High End Custom Setups
Preowned Macs with Warranty
FAX 310-317-1583

800-432-BYTE
OPEN MON. - SAT.

CIRCLE 352 ON READER SERVICE CARD

CALL THE POWERBOOK SPECIALISTS!

- PB 145s
- PB 160s
- PB 180s
- DUOs
- Memory
- Batteries
- Modems
- Hard Drives
- Accessories



All New Macs In Stock

Quadra Systems Available

We Ship Anywhere Overnight Delivery Available

We Carry Over 2,000 Items We Won't Be Beaten On Price

Direct TECHNOLOGY
Macs, PC's and Peripherals at direct to you prices!

800-643-0539

Houston: 713-893-5005 • Fax: 713-440-5980

CIRCLE 308 ON READER SERVICE CARD

WANTED: TRADING PARTNER FOR JAPAN MAIL ORDER

• Hardware, Software Miscellaneous and all Mac's equipment

Please Fax to us, send you detail trading condition

Media Guide

Freedom Nishinomiya 106
2-8 Baba Cho Nishinomiya City
662 Japan

Fax (81) 798-34-5703

CIRCLE 310 ON READER SERVICE CARD

Data Link Resources

Madness Sale!

Everything Macintosh

Classic II 4/40	$1049
Mac LC II 4/40	$1249
Mac IIsi 3/40	$1499
Mac IIci 5/120	$2649
Mac IIci 8/240	$3099

800)MAC-5265

New Mac Quadra's & Powerbooks in Stock

Lowest Prices Call us Now!

FREE SHIPPING

Entire Line of Apple Products
Major Brand Laser Printers, Monitors
Scanners, Hard Drives, Interface Cards.

4525 Ave-H, Suite: A. Austin, Texas 78751.USA
Intl orders: (512)323-0040 Fax: (512)323-5465

CIRCLE 311 ON READER SERVICE CARD

0% DOWN WE DO LEASING BEST **OUTSMART THE FUTURE**

1000'S OF LEASABLE ITEMS AVAILABLE!

- MAC IICI 8MB RAM
- QUANTUM 425MB HD
- 16" MONITOR, 24 BIT
- EXTENDED KEYBOARD

$160 mo

- PWRBK 145 4/40
- CARRYING CASE

$75 mo



TAX DEDUCTION
UP TO $25,000
NO TAX RETURNS
NO FINANCIALS

24 HR APPROVALS!

CALL TODAY!

PC LEASE • (800) 532-7395

CIRCLE 309 ON READER SERVICE CARD

Reach Macintosh business buyers with MacUser Marketplace.

INTERNATIONAL COMPUTER & NETWORKING

MACS **WANTED! MAC EQUIPMENT** MACS

Tel. (310) 441-9181 & Fax (310) 479-0124

WE BUY & SELL

Top $$$$ **MACS** Call Now!

We pay top $dollars$ for used Macs & Peripheral devices.
We also sell refurbished Mac systems for low prices!

CIRCLE 334 ON READER SERVICE CARD

LATEST SPECIALS

Mac SALE INTERNATIONAL

NEW/REFURBISHED/USED SALE !!!

QMS SPECIALS

PS 410 Laser Printer - $999
Factory Refurbished with Manufacturers Warranty

ColorScript 100 Model 10
USED: $1,999 - 300 dpi Color Laser

CUSTOM CONFIGURATIONS AVAILABLE

CPU's

USED
- **Mac Plus - $359.00**
- **Mac SE 1/20 (800K) - $625.00**
- **Mac II 1/0 - $1,079.00**
- Mac IIcx 1/0 - $1,499.00
- Mac Portable 1/40 - $799.00
- Call for latest pricing on Mac SE/30, IIsi, IIci, Powerbook, etc.

NEW
- **Mac Classic 2/40 - $795.00**
- Mac LC 2/40 - $949.00
- Mac IIsi 3/40 - $1,575.00
- Mac IIci 5/0 - $2,249.00
- Call for latest pricing on Mac IIvx, Classic II, Powerbook, etc.

Printers

USED
- ImageWriter I Wide - $149.00
- Apple Laser IINT - $1,295.00
- Apple Laser IINTX - $1,595.00
- Apple Laser IIf - $1,999.00
- Apple Laser IIg - $2,499.00

Apple Accessories

ADD-ONS
- Portable Keyboards - $35.00
- Mac IIsi NuBus Adapters - $125.00
- Mac LC IIe Adapters - $75.00
- LocalTalk Board for PC - $25.00
- Hayes 2400B Int. Modem - $25.00
- Apple Stand. Keybd - $65.00 (used)
- Laser Toner - $avings

Monitors

USED
- 12" Mono - $175.00
- 12" RGB - $325.00
- 13" Hi-Res RGB - $499.00
- Portrait Display - $399.00
- Two Page Mono - $799.00
- 21" Color - $1,999.00
- Apple Univ. Mon. Stands - $35.00

Radius, RasterOps & SuperMac

USED
- TPD Mono - $799.00
- 19" Trinitron - $1,375.00
- 19" Hitachi - $1,150.00
- • similar savings on other models!

Apple Parts

POWER SUPPLIES
- Mac Plus - $85.00
- Mac SE + SE/30 - $95.00
- Mac SE Analog - $115.00
- Mac Classic - $125.00
- Mac LC/LCII - $125.00
- Mac II - $250.00
- Mac IIfx - $275.00
- Quadra 900/950 - $375.00

LOGIC BOARDS
- Mac Plus - $199.00
- Mac SE (800K) - $225.00
- Mac SE (FDHD) - $275.00
- Mac Classic - $199.00
- Mac II - $475.00
- Mac IIcx - $750.00
- Mac Portable - $250.00
- Laser IINT - $279.00
- Laser IINTX - $579.00

VIDEO CARDS
- 1 bit - $59.00
- 4 bit - $79.00
- 8 bit - $95.00
- Portrait Displ. - $25.00
- Radius, RasterOps, SuperMac - $Blow-Out

DRIVES
- 20 MB Int - $115.00
- 40 MB Int - $150.00
- 80 MB - 425 MB - $avings

QMS

PS 810 Postscript Printer - Demo - $1,399.00
New - $1,699.00
Turbo (NEW) - $2,399.00

PS 815 MR Printer - Demo - $2,749.00
New - $2,999.00

PS 820 Printer - Demo - $1,599.00
New - $1,899.00
Turbo (Demo) - $2,599.00

PS 410 Laser Printer - Demo - $899.00
New - $1,199.00

PS 2220 - Demo - $5,500.00
New - $6,950.00

WE WANT TO BUY YOUR NEW/USED MAC EQUIPMENT

New and Used Mac's
•
Bought and Sold

1-800-729-7031
Compare Our Prices, Quality & Service.

Entire Mac Line
•
Latest Models In Stock

Prices Represent Cash Discounts!

Mac SALE INTERNATIONAL

Other Configurations Available

CIRCLE 312 ON READER SERVICE CARD

CLASSIFIED

COMPUTER SYSTEMS

Mac SALE INTERNATIONAL
New Jersey

Entire Macintosh Line
New and Used, Bought and Sold
Latest models in stock!

1-800-729-7031
Compare Our Prices, Quality & Service.

♦ *WE'LL PAY CASH FOR YOUR MACINTOSH EQUIPMENT* ♦
Any Quanity/New and Used

Call For Specials

Ask About:
MAC II, MAC LC, MAC II CX, MAC II SI, MAC PORTABLE, POWERBOOK 140, MAC PLUS, LARGE MONITORS, APPLE LASERWRITERS, HP-DESKWRITERS, QMS PRINTERS, APPLE & HAYES MODEMS

CIRCLE 313 ON READER SERVICE CARD

DATA RECOVERY SERVICES

WE CAN SAVE IT!

DRIVESAVERS™
415•883•4232

- Macintosh Data Recovery
- Repair any Mac Hard Drive
- PowerBook Specialists
- Optical/Syquest Recovery
- Fast Nationwide Service

30-D Pamaron Way, Novato, CA 94949

CIRCLE 314 ON READER SERVICE CARD

Memory Upgrades category continues on page 345.

DISK DRIVES

SATURAE
"BIG HARD DRIVES"

"Pick the ProLine if speed and warranty are your top concerns." –MacUser, April 1992

Saturae Corporation
800 - SATURAE
800-728-8723
International Orders (617) 661-8166
Fax Orders (617) 661-8662
Tech Support (800) 373-3063
CALL US! 9AM to 8PM EST Mon-Fri
VISA and MC Accepted No Surcharge
AmEx Accepted. POs Accepted on Approval
148 Richdale Avenue Cambridge, MA 02140

ProLine HEWLETT PACKARD

Capacity		Seek/Effective	Internal	External
220MB	3.5"	12.6ms	$ 769	$ 849
402MB	3.5"	12.6ms	$ 1,029	$ 1,099
1003MB	3.5"	10.5ms	$ 2,079	$ 2,149
1025MB	FH	13.5ms	$ 1,929	$ 2,049
1290MB	FH	13.5ms	$ 2,279	$ 2,399
1290MB	FH	11.5ms	$ 2,679	$ 2,799
1650MB	FH	11.5ms	$ 2,979	$ 3,099
2000MB	FH	11.5ms	$ 3,379	$ 3,499

Edge NEW! **RARE (DEC)**

1005MB	3.5"	10.5ms	$ 2,029	$ 2,099

Academy QUANTUM

42MB	1"Ht	19ms	$ 209	$ 289
85MB	1"Ht	17ms	$ 299	$ 379
105MB	1"Ht	17/11ms	$ 339	$ 419
120MB	1"Ht	16/10ms	$ 379	$ 449
170MB	1"Ht	17ms	$ 429	$ 499
240MB	1"Ht	16/10ms	$ 629	$ 679

ProLine FUJITSU

Capacity		Seek/Effective	Internal	External
520MB	3.5"	12/9ms	$ 1,079	$ 1,649
1029MB	3.5"	14/11ms	$ 1,679	$ 1,799
1666MB	FH	11.5ms	$ 2,879	$ 2,999

Sentry TAPE BACKUP
Sentry drives include Retrospect backup software and one tape

250MB	Sankyo 1/4" Tape Drive	$ 649
525MB	Sankyo 1/4" Tape Drive	$ 799
2000MB	Hewlett Packard DAT Drive	$ 1,449
5000MB	Hewlett Packard DAT Drive	$ 1,699

Vision MAGNETO-OPTICAL
Magneto-Optical drives include one cartridge

128MB	3.5"	35ms	MOST	$ 1,289
256MB	3.5"	35ms	MOST NEW!	$ 1,699

All drives come complete with software, cables and one of the best installation manuals in the industry. ProLine drives have a five year warranty. Academy drives and Sankyo tape drives have a two year warranty. HP DAT and Vision MO Drives have a one year warranty. 30 day money-back guarantee on all 3.5" hard drives. Prices subject to change. We offer toll-free technical support from 9AM to 8PM Mon-Fri. All hard drives have a 48 hour turnaround time on warranty repair for the first year.

CIRCLE 315 ON READER SERVICE CARD

DISKETTES

FORMATTED DISKETTES
BASF, VERBATIM, SONY

WITH FORMAT	QTY 250 MIX & MATCH	WITHOUT FORMAT
$.41	5.25" DS/DD	$.36
$.62	5.25" DS/HD	$.54
$.63	3.50" DS/DD	$.53
$.99	3.50" DS/HD	$.89

- **FREE FORMATTING** on First Order
- **TYVEC SLEEVES** & Labels Included
- **COLORED MEDIA** Please Add $.05
- **VOLUME DISCOUNTS** Available
- **SAME DAY** Shipping
- **MONEY BACK GUARANTEE**

800-255-3142
Diversified Systems Group, Inc.
PO Box 1114, Issaquah WA 98027

CIRCLE 316 ON READER SERVICE CARD

MEMORY UPGRADES

MAC systems
118 West Broadway
Altus, OK 73521
Fax: (405) 477-3780
Your Memory Connection!

Quadra 700/900 VRam	35	1 x 8 x 80	CALL
Quadra 950 VRam	40	1 x 8 x 70	CALL
LC VRam	59	1 x 8 x 100	CALL
LC FPU	59	1 x 8 x 80 fx	CALL
PowerBook 2 mb	99	2 x 8 x 80	CALL
PowerBook 4 mb	195	4 x 8 x 80	CALL
PowerBook 6 mb	239	4 x 8 x 70	CALL
		4 x 8 x 80 fx	CALL
		4 x 8 x 80 II	CALL
		8 x 8 x 80	CALL
		16 x 8 x 80	CALL

LIFETIME WARRANTY

800-942-6227

CIRCLE 317 ON READER SERVICE CARD

Join the CD-ROM Revolution!

We'll meet or beat any advertised price on CD-ROM products

Call for your free color catalog

CD-ROM Drives

All drives come complete and ready to run on Macintosh computers. Your choice of cable. Specify #981 MAC to SCSI or #982 SCSI to SCSI. $50 off the EDUCORP Shareware CD with purchase of any drive.

CD-ROM Drive	Access Time	Buffers	SCSI Settings	Volume Control	Audio Software	SCSI Ports	Terminator	Termination	RCA Jacks	Maximum Voltage	Data Transfer	Reliability MTBF	Warranty	MAC Price	MAC Parts
NEC CDR-37	450ms	64K	Dip Switch	Dial	Music Box DA	1	Not Included	Internal Termination	No	120 Volts	150K/Seconds	10,000	2 Year	$449	1969
NEC CDR-74	280ms	64K	Dip Switch	Dial	Music Box DA	2	Included	Not Terminated	Yes	220 Volts	300K/Seconds	25,000	2 Year	$639	1970
CD Tech CD-T3301	325ms	64K	Push Button	Dial	CD Remote DA	2	Not Included	Not Terminated	Yes	250 Volts	150K/Seconds	50,000	2 Year	$579	1981

*2 FREE CDs-America Alive and Multimedia HANDisc with the purchase of CD-Technology Porta Drive.

CD-ROM Drive Bundles

CD Technology CD-T3301 Porta Drive, 11 CD titles, speakers, headphones $699!

Includes drive, Labtec speakers w/AC adapter, stereo headphones, 11 CD-ROM titles, cable, driver software, and power supply.



Titles included are:

- World Atlas • Multimedia Encyclopedia
- Publish It! • Desert Storm • Cosmic Osmo
- Beethoven's String Quartet #14 • Color It!
- EDUCORP CD Sampler • Boston Expo CD
- PLUS coupons for two free multimedia titles:
- Multimedia HANDisc • America Alive

Total value $2,399 You pay $699 #D1981

This is a LIMITED TIME offer!!!

NEC Drive Bundles

These new NEC bundles include an NEC CD-ROM Drive, external amplified stereo speakers, batteries, driver software, cables and up to 11 CD-ROM titles for as low as $399!

Multimedia Gallery $799

Includes the NEC CDR-74 CD-ROM drive with 7 CD-ROM titles: • Grolier Multimedia Encyclopedia • Just Grandma and Me • Great Wonders of the World • Sherlock Holmes Consult. Detective • U.S. Atlas • Color It! • EDUCORP CD Sampler • Headphones

Total value $1,860 You pay $799! #M1970

CD Express $399

Includes the NEC CDR-25 CD-ROM drive with 11 CD-ROM titles: (CDR-25 Access Time 650ms) • Publish It! • World Atlas • Lucasfilm Favorites • Total Baseball • Interactive Storytime • The Family Doctor • Great Cities of the World v.2 • Aesop's Fables • Manhole • Best of the Bureau • EDUCORP CD Sampler

You pay $399! #C1964

Create your own bundle

"You asked for it, you got it!"

When you purchase any CD-ROM drive from EDUCORP, you have the option of creating your own CD-ROM drive bundle! Combine with the other CD-ROM drive bundles for phenomenal savings.

Start your CD-ROM library with the titles you want. Here's 28 titles on a variety of subjects.

Choose from 28 titles

- Pick any 3 titles listed below for only $89.95 (code CB3)
- 5 for $149.95 (code CB5)
- 8 for $199.95 (code CB8)

#	CD-ROM Title	Retail Price
B1.	World Atlas	$79.95
B2.	Multimedia Encyclopedia	395.00
B3.	Time Table of History	129.00
B4.	Desert Storm	39.99
B5.	Cosmic Osmo	59.95
B6.	Beethoven's String Quartet #14	66.00
B7.	CIA World Fact Book	99.00
B8.	US History	395.00
B9.	The Orient	199.00
B10.	Sherlock Holmes Consulting Det	69.95
B11.	Environmental Data Disc	189.95
B12.	Economic Data Disc	189.95
B13.	US Atlas	79.95
B14.	Lucas Game Pack	(only for bundle)
B15.	Color It!	299.95
B16.	Publish It!	$199.95
B17.	SportsROM	69.95
B18.	FM Waves Artware	149.00
B19.	DTPro	149.00
B20.	Manhole	34.95
B21.	Scenic & Nature III	129.00
B22.	Scenic and Architecture	129.00
B23.	600 Days to Cocos Island	129.00
B24.	Boston Expo CD	15.00
B25.	Funny: A movie in QuickTime	39.99
B26.	The Orchestra	79.98
B27.	Sports Illustrated- Almanac	59.95
B28.	Word Tales	49.99

More CD-ROM drives and optional bundles available, call.

Over 275 CD-ROM Titles in Stock

We'll meet or beat any advertised price on CD-ROM products.

SPACESHIP WARLOCK™

An Interactive Movie



"It heralds the next generation of computer entertainment"
-Craig Crossman
THE MIAMI HERALD

"Just buy this disc"
-Jerry Borrell
Editor in Chief
MACWORLD

1583 Spaceship Warlock.....69.95

Robustly detailed and dazzling in its sweep and depth, Spaceship Warlock is a blazing, swashbuckling, wonder-filled Science Fiction epic in the grand tradition! Advanced graphics, 3D animation, and an original music score combine to create a cinematic adventure in which you become the central character.

QuickTime

1659 WraptureReels One$179.95
Broadcast quality digital video with animated textures and looping video clips.

1677 ClipTime v.1.....169.95
Add a new dimension to your applications with over 250 royalty-free movie clips.

1919 ClipTime v.2.....199.00

1701 Digital Video Library.....129.95

Stock Photos

1735 People in Business* $129.95
Show the American work force with over 200 color photos of men and women working.



1788 Swimsuit v.2...199.00
NEW! 200 color photos.
*Unlimited reproduction rights.

Over 16 photo-based titles available, call.

Textures & EPS

1653 Wraptures One.....$95.00
Over 120 seamless tileable textures in PICT.

1990 Wraptures Two 130 textures **....95.00**

1857 BackIMPACT! Pro 150 EPS. **.149.95**

1856 SlickART Plus.....199.95
Art lettering, images and backgrounds.

1680 GraphTech Graphic Designs **.....49.95**
450 color & b/w EPS editable images.

Fun Learning



1570 LifeSaver 2.0.....$99.0
Interactive, multimedia first aid course.

1566 Dictionary of the Living World 2.5.....$199.0
"A brilliantly conceived multimedia database of life on earth." MacUser Magazine

1925 Dinosaurs Multimedia Encyclopedia 149.0

Artistic Talents

1327 ExoticaROM 3.0$199.00



Olivia De Berardinis is one of the foremost artists of our time. Here's 200 extraordinary pieces, a new color browser, and a QuickTime interview w/Olivia herself!

1786 Boris Vallejo.....199.00
New! 200 incredible fantasy art images.

Shareware

1300 EDUCORP Shareware 7.0.....$199
Pick up your resource fork, drop your jaw, and take more than a gigabyte out of this 2-CD set. It contains EDUCORP's entire collection of Public Domain and Shareware. With over 20,000+ files on your desktop, you'll have more software than you can digest.

$50 off when you buy any CD-ROM drive from EDUCORP.

EDUCORP 1-800-843-9497

CIRCLE 328 ON READER SERVICE CARD



FREE Catalog!

You don't see the CD-ROM title you want? Chances are we have it! Call for your free color catalog. (Foreign customers please send $4 for postage & handling)

UA13 EDUCORP • 7434 Trade St • San Diego, CA 92121 • Orders 1-800-843-9497 • Info 619-536-9999 • FAX 619-536-2345
Order toll-free in the U.S. and Canada • Prices subject to change without notice • Dealer Inquiries Welcome

800-622-6885

Putting Power On Your Desktop



TOLL FREE LINE FOR BOTH ORDERS AND TECHNICAL SUPPORT

▼

THREE-YEAR WARRANTY ON ALL RASTEROPS SUPERMAC AND DAYSTAR

▼

BEST TECHNICAL SUPPORT AVAILABLE

▼

30 DAY MONEY BACK GUARANTEE

E-Machines SPECIALS!! T-19 Sx 8 bit System $2395 T-19 Mx 24 bit System $2895

RasterOps

SHOW SPECIALS

MacOutlet has just acquired the entire supply of RasterOps demo products used for four days at MacWorld Expo Boston. All products carry full factory warranty and are in limited supply.

Dream System

RasterOps 21" Color Hitachi Monitor w/24XLTV	$4675.
RasterOps 21" Color Hitachi Monitor 24XLTV	$2475.
24 bit large screen display board with video	$2499.

Designer System

2075M 20" Trinitron w/24 XLI *Package Price*	$3775.
24 XLI accelerated color card	$1699.
2075M 20" Trinitron	$2275.
ProColor 32 video board	$2549.

With purchase of system

Add a CorrectColor Printer for only $6399.

DayStar Digital

Universal PowerCache 33MHz	$579.
Universal PowerCache 40MHz	$795.
Universal PowerCache 40MHz w/68882	$999.
Universal PowerCache 50MHz	$1145.

Fusion Data Systems

TokaMac CI 25 MHz 68040 PDS based Accelerator for Mac II ci.	$CALL
TokaMac LC 25 MHz 68040 Accelerator for Mac LC.	$CALL

NEC

NEW 4FG 15" MultiSync Monitor	IN STOCK.
NEW 3FGX 15" MultiSync Monitor	IN STOCK.
NEW 5FG 17" MultiSync Monitor	IN STOCK.

Umax

UC630 600dpi Color Scanner w/Photoshop (full version)	$1175.
Transparency/Slide Scanner Option	$CALL.
Automatic Document Feeder	$CALL.

Lapis

SE, SE/30 & Mac II Display Cards	$CALL.

Magnavox

Magnavox Profesional 14" Color Monitor	$419.
Magnavox MultiScan 17 Color Monitor	$995.

Supra - IN STOCK!!

Supra 2400 w/MacPac Software	$129.
SupraFax Modem Plus 2400/9600	$189.
SupraFax Modem 14.4 v.32 bis IN STOCK	$379.

SuperMac

Spectrum 24 Series III/Trinitron System 24 bit accelerated card with SuperMatch 20 Dual Mode Trinitron	$CALL FOR NEW LOW PRICES
Spectrum 8·24 PDQ SuperMatch 20" Sys. Accelerated video card with 20" SuperMatch	
SuperMatch 17" Multimode Color Monitor	
Spectrum 8·24 / 8·24 PDQsi	
Spectrum 8LC	

E-Machines

E-Machines NEW! T-16 II/SX-24 Trin. Sys. 16" Trinitron w/24 bit accelerated video board.	$1799.
E-Machines NEW! T-16 II/SX-8 Trin. Sys. 16" Trinitron w/8 bit accelerated video board. It's upgradable.	$1649.
E-Machines NEW! T-16 II/DoubleColor Sys. 16" Trinitron w/8 bit accelerated video board. Incredible Value!	$1549.

TechWorks

NuBus 10 Base T, Ethernet Card	$175.
NuBus 10 T, Thin, AAUI Ethernet Card	$199.
GraceLAN Std. 50 User Version 2.0	$329.
GraceLAN Asset Manager	$559.

Seiko

CM1445 24 Bit Color Bundle 14" RGB monitor with RasterOps 24SX 24 bit color board	$1229.
CM1445 8 Bit Color Bundle 14" RGB monitor with RasterOps CB208 color board.	$779.

Truevision

NuVista NTSC Graphics Overlay Card	$CALL.

Simms

1mb, 4mb & 16mb for all Mac's	CALL FOR PRICE.

MacOutlet
GRAPHICS DISPLAY SYSTEMS SPECIALISTS

CIRCLE 319 ON READER SERVICE CARD

800-622-6885

CALL FOR FREE CATALOG

Prices current as of publication deadline. Call for todays prices

48501 Warm Springs Blvd. #102
Fremont, CA 94539
(510) 623-8890 Fax (510) 623-8894

MacUser MARKETPLACE CLASSIFIED

Tape Drives

DAT PRICE BREAKTHROUGH

1.2 GIGABYTE EXTERNAL TAPE



JUST $895

An exceptional buy lets us offer this DAT tape backup system for below normal dealer cost!
- Complete with software
- Fully System 7 compatible

COMPTEK (213) 852-1792

CIRCLE 320 ON READER SERVICE CARD

Desktop Publishing

210 Video Clips Unlimited, Royalty-Free Non-Broadcast Rights

AdClips® VOLUME ONE

A collection of 48 minutes of broadcast quality footage with *unlimited royalty-free* non-broadcast reproduction rights. Broadcast rights may be negotiated separately. Clips range in length from 4-41 seconds. Subjects include: •Nature •Recreation •Wildlife •City Scenes •Lifestyles •Transportation •Historical •Corporate/Industrial. NTSC. (Call for PAL info) Professional formats: S-VHS, Hi-8, VHS, 8mm & CD-ROM - $299. Commercial formats ($299 plus dub charge): D2 - $639, MII - $433, Betacam SP - $424, Betacam - $424, 1 Inch - $424, 3/4" - $349. More info? Call for complete subject index or five minute VHS demo containing 73 clip segments - $9.95 (applied to purchase).

MEDIACOM

(804)794-0700 / FAX (804)794-0799
P.O. Box 36173 Richmond, VA 23235

CIRCLE 326 ON READER SERVICE CARD

Educational

GRADE MACHINE

GRADING MADE EASY!

The best Mac gradebook just got better.

New Version 5.0 adds student graphs, narrative comments, multiple grading scales, user-defined special scores, password protection and much more. System 7 and network compatible. Not copy-protected. **Affordable** site licenses available.

Misty City Software
10921 129th Place NE
Kirkland, WA 98033
(800) 795-0049

Still only $79 ($99 bundled with **new Attendance Module**) +$5 S&H MONEY-BACK GUARANTEE!

CIRCLE 324 ON READER SERVICE CARD

Entertainment/Games



Bare Assets

Best Selling QuickTime Movies

Adults Only Visa/MC Color Macs Only

Space Coast Software
(800) 940-2040 orders

CD ROM $179
3 HD-floppy Sampler $29.95 (photos only)

CIRCLE 325 ON READER SERVICE CARD

Software/Accounting



Point of Sale • Inventory • UPS

Bar Coders — Cash Drawers

FREE CATALOG & Demo Disks

Largest installed Macintosh point of sale base in North America

ShopKeeper POB 38160, Tallahassee, FL 32315
Call 904 • 222-8808 — Fax 904 • 668-9916

CIRCLE 321 ON READER SERVICE CARD

Bar Coding

The Experts' Choice

FOR BAR CODE GENERATION

MacBARCODA

- Generates bar codes in EPSF
- Compatible with all the popular page-makeup packages
- UPC, Code 39, Interleaved 2of5,EAN, ISBN, and ISSN
- **All** the vital features necessary for quality bar code production
- **Full control** over magnification, truncation and bar width reduction
- **Automatic** check digit verification
- **No messing with fonts or film**



Acknowledged as the best by imagesetter manufacturers and end users in 35 countries of the world.

FOR LABEL PRINTING

label designer

- Postscript label printing package
- Any label size & sheet layout
- Create labels using text, PICT & EPS graphics, bar codes & lines
- Incrementing bar codes & numbers
- Variable content and quanity
- Imports from ASCII text files
- Bar codes include UPC, Code 128 Code 39, EAN, Postal Codes & ISBN

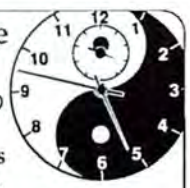
ComputaLabel

ComputaLabel Inc. 28 Green St. Newbury MA 01951 **Tel 800-289-0993** Fax 508-462-9198

CIRCLE 322 ON READER SERVICE CARD

Cad/Cam

Some Translators Are A Waste of Your Time



Don't Get Frustrated... Get CADMOVER®

CADMOVER won't lose your graphic's line weights, crush its layers, gloss over its text or complain that your file is too large.

Quality results are available via IGES, DXF, HPGL, EPSF, CGM, Gerber, DDES2 & a variety of Mac based formats.



Easy to use... accurate...effective.

Call 703. 532. 0213

KANDU Software Corporation

CIRCLE 323 ON READER SERVICE CARD

EROS

COMES ALIVE ON YOUR PC OR MAC!

Experience EROSLink™ The Ultimate Online Service

Uninhibited one-on-one chat and party lines with our exciting hostesses and other callers.

Sensuous color, publication-quality images for downloading.

Act Today! Get your software and information on how to access EROSLink in your area—

Use your modem (8-N-1) to dial:

1-212-254-0969

When asked for ID, enter: EMUB.

CIRCLE 327 ON READER SERVICE CARD

More than three quarters of MacUser subscribers will purchase Macintosh products through mail order in the next 12 months; 85% of these will be purchasing software.

Will they buy from you?

Only if you advertise in MacUser Marketplace. Call your account representative at **800-825-4237** today!

Source: MacUser Mail Order Report, 1991

Reach those who count!

Nearly 8 in 10 MacUser subscribers are directly involved in their organizations' decisions to acquire Macintosh computer products. In fact,

- 74% initiate purchases
- 73% are involved in brand selection
- 63% are involved in selecting the purchase source
- 40% authorize purchases.

For advertising information, call your MacUser Marketplace account representative today at **800-825-4237.**

Source: MacUser 1992 Study of Microcomputer Product Ownership and Buying Plans

SIMMPLY THE BEST

SERVICE • QUALITY • PRICES FROM THE LLB CO.



SIMMS

1x8x80*	4x8x80*	2x8x80*
$30	$100	$56

1x8x70* $32	1x8x80FX* 32	8x8x80* 279
1x8x100* 30	1x8x70FX* $33	8x8x80FX* 279
4x8x70* 102	4x8x80FX* 102	16x8x80* 469
4x8x100* 98	4x8x70FX* 104	16x8x80FX* 469
4x8x80 II/IIx* . 122	*Life Time Gurantee On SIMMS	

MAC PORTABLE SIMMS

#MP30 (3MB) $449 #MP40 (4MB) $519

POWERBOOK

PB100-2Mb $95	MicroTech Hard Drives
PB100-4MB 195	40Mb Internal $449
PB100-6Mb 269	80Mb Internal 689
PB145/170-2Mb 95	120Mb Internal 729
PB145/170-4Mb 195	120Mb W/6Mb Memory .. 929
PB145/170-6Mb 239	PowerPort Bronze 219
BookView (Video) 1069	PowerPort Silver 439
Battery Chager 149	PowerPort Gold 619
Battery 140/170 79	PSI Powermodem 24/96 . 214

SYQUEST CARTRIDGES



$63 44MB $99 88MB

APPLIED ENGINEERING

QuickSilver IIsi	$219
QuickSilver IIsi with FPU ...	259
Transwarp SE	525
Transwarp SE W/FPU	729
Transwarp LC 25mhz	449
Transwarp LC 33mhz	919
Transwarp LC 40mhz	1259
Transwarp LC 50mhz	1389
Transwarp 040	1759
Transwarp CI 50mhz	1309
FastMath LC	119
FastMath Classic II	129
QuadraLink	182
QuadraLink DMA	329
QuadraLink DMA/Lan	379

DAYSTAR

Universal PowerCache:	
33mhz	$539
w/FPU	659
40mhz	749
w/FPU	909
50mhz	1079
w/FPU	1319
PowerCache Adapter	41
FastCache IIsi 64K	279
FastCache IIsi 64K w/FPU ..	349
Equalizer LC	169
Equalizer LC w/FPU	239
RAM Power Card 0 Meg	429
Combo Cache IISI	209
Combo Cache IISI W/FPU ..	299
Quadra Cache (128k)	269

RADIUS

Rocket 040 25mhz	$1329
Rocket 040 25mhz FPU	1689
Rocket 040 33mhz FPU	2109

REMOVABLE DRIVES

DPI Infinity 44 SyQuest ...	$519
DPI Infinity 88 SyQuest	639
DPI 128Mb Optical	1279
DGR 128Mb Optical	1199
DGR 256Mb Optical	1689
Pinnacle Micro 650Mb Optical (Fastest)	3119
AE Flopticale (21Mb)	459
PLI Flopticale (21Mb)	409

OPTICAL DISKS

Komag 128Mb	$45
Verbatim 128Mb	49
DGR 256Mb	95
Flopticale Disks (21Mb)	24

BERNOULLI DISKS

44MB Disk 3-pack	$265
90MB Disk 3-pack	435

ASANTE / FARALLON

CALL FOR BEST PRICING

MODEMS

Global Village	
NEW! TelePort Bronze 24/96	$199
NEW! TelePort Silver 96/96	359
NEW! TelePort Gold 14.4/96	449
Supra!	
Supra 5014FX 14.4/14.4 (W/Software) .	$359
Supra 50140 14.4/14.4	305
Supra 5024 (2400 Baud)	74
Quicktel	
Quicktel Xeba 14.4/14.4 (W/Software)	$325
Quicktel Xeba 96/96	299
Quicktel Xeba 24/96	169

MISCELLANEOUS

Quadra Video 256K (100ns)	$35
PMMU/MC6885	159
Optima 32 (Software)	149
Maxima (Software)	44
LC 16MHz Math Co-Processor	59
Classic II 16MHz Math Co-Processor	59
Mac101 Extended Keyboard	120
Kensington Turbo Mouse 4.0	106

FAX YOUR ORDER 24 HOURS A DAY

(206) 454-7302

ALL GOVERNMENT & EDUCATIONAL PO'S ACCEPTED UPON APPROVAL

Call Between 7AM and 6PM Pacific Time Monday - Friday

Saturday Between 9AM and 4PM Pacific Time

1-800-848-8967

The LLB Company, Inc. • 300 – 120th Ave NE, Bldg. 1, Suite 120, Bellevue, WA 98005 • Phone: (206) 454-7258

COMPARE OUR LOW SHIPPING PRICES:

$6 And up Overnight shipping by Airborne Express.

$4 And up ground shipping by UPS.

- Orders received before 7:30 PM Eastern Time weekdays ship same day.
- We export to most countries in the world.
- Prices subject to change.
- Quantity pricing for dealers.
- Bank cards accepted. Your card is not charged until the order is shipped.
- All returns require approval and are subject to a restocking fee.

CIRCLE 338 ON READER SERVICE CARD

CLASSIFIED

FONTS

NEW
Introducing a New Concept in Font Format
PolyType
4 Volums: Ornaments ◇ Corners ◇ Art Deco ◇ Images
520 Original Images
Use in any program that supports font menu
Scalable to any size your programs allow
Open/modify outlines in Freehand or Illustrator
Call for Brochure or Send $10.00 for Sample Disk
800 998-9934
P.O. Box 25976, Los Angeles, CA 90025 310 444-9934 FAX 310 444-7897

CIRCLE 329 ON READER SERVICE CARD

PostScript® Fonts
Mac/PC; Disk/CD-ROM
All the popular libraries & the hard-to-find.
Adobe: 40% off
Adobe's list–excluding Berthold fonts
800.942.9110
FONT HAUS
FontHaus is an authorized reseller for more than 30 PostScript libraries, including our own FoundryExclusives. Free delivery available. Catalog: $5 AmericanExpress & C.O.D. accepted.
Fax: 203.849.8527

CIRCLE 330 ON READER SERVICE CARD

Font Reference Guide
The Precision Type Reference Guide 150+ pages of displays, information and pricing for thousands of fonts, font software tools and CD's. $6.95
Prices discounted up to 40% off list. The $6.95 cost is refunded with your first order.
Precision Type
The Complete Font Software Resource
800.248.3668
47 Mall Drive
Commack NY 11725
516.864.0167
Use Visa, MasterCard, AMEX or Discover for your Reference Guide order.

CIRCLE 331 ON READER SERVICE CARD

GRAPHICS

8 Collections of Hand-Drawn Government images
FEDERAL CLIP ART™
On GSA Schedule
U.S. & World Flags
U.S. Government Seals
Military Images, etc.
Toll Free for a FREE Brochure 800•258•5280

CIRCLE 338 ON READER SERVICE CARD

Full Page EPS Backgrounds
For any page layout.
Over 90 images, each in Color, EPS, and Original FreeHand & Illustrator files
For orders,info & Brochures
1-800-467-2244
1-602-938-7442
Innovative Graphics
Introductory Price $89.99
NEW

CIRCLE 339 ON READER SERVICE CARD

MAPS!
• Great for Newsletters, Reports, Presentations, Marketing and the Classroom
• Maps Work with DTP and Graphics Programs
• Each Package Includes - Freehand, PICT and Paint
• Easy to Edit and Customize, Manual Included
• World Maps - Continents, Regions, Countries, & Major Cities
• USA State-by-State - Every State, w/Major Cities, Highways & Waterways
To Order Or For FREE Brochure
800-843-3873
Bruce Jones Design Inc.
31 St. James Ave, Boston, MA 02116
MC/VISA • Fax (617) 350-8764

CIRCLE 336 ON READER SERVICE CARD

Three Dimensional Wireframe Construction Program (TDWCP) with polygons
Write for free demo
Features
• Lathe/Extrude
• Clip/Deform
• Edit/Compose
• Color/Textures
• 3D Text tool
• Math surfaces
• Imp/Exp PICTs
• 3D projections
• 6 light sources
• Split screen
• Slide show
• Balloon help/Sy7
• Man/Tutorials
Only $39.95
Bayou Software Inc.
P.O. Box 1095, Shalimar, FL 32579*

CIRCLE 341 ON READER SERVICE CARD

GRAPHICS

Give Your Designs Impact!
IMAGES WITH Impact!
CD ROM
Includes all five IMAGES WITH IMPACT! products. Contains all the original images in EPS and 72dpi PICT file formats. You'll also receive full-color versions of many of our original black and white files. For upgrade information contact 3G Graphics.
800-456-0234
3G Graphics, Inc.
114 Second Ave. S., #104
Edmonds, WA 98020
(206) 774-3518

CIRCLE 332 ON READER SERVICE CARD

Perfect Body Parts. 99¢ Each.
MediClip... the first complete medical anatomy and art library for your MAC or IBM.
• Available in high quality EPS and all major formats
• 3 volumes of 100 images for only $99 each
1-800-998-8705
MediClip™
Outside continental U.S. call 1-310-315-3420
This offer not valid through retail outlets

CIRCLE 333 ON READER SERVICE CARD

THE SANTA FE COLLECTION
Native American & Southwest Clip Art for Mac & PC
500 Images & 125 Borders!
EPS Now Available!
Paint version reduced to $49
Call for Introductory Offer:
(505) 891-1600
1-800-245-7824
RT COMPUTER GRAPHICS
602 San Juan de Rio, Rio Rancho, NM 87124

CIRCLE 337 ON READER SERVICE CARD

The Multiple Media Tour™
Over 1500 royalty-free graphic, sound and animation Macintosh files on one CD-ROM! Enhance your Multimedia, Educational and Presentation projects quickly and easily with this collection of original multimedia resources. Now supporting six languages!
Call for free demo disk!
Audio Visual Group
398 Columbus Ave, Ste. 355A
Boston, MA 02116
(617) 381-1609

CIRCLE 340 ON READER SERVICE CARD

Over 300 Borders!
Art Deco - Art Nouveau
Certificate - Contemporary
Victorian - AND MORE!
Cliptures Volume 5 • Borders
Over 300 decorative borders in EPS format. Each border is a complete design, ready-to-go! All for only $129.95.
FREE CATALOG 800-876-5665
Dream Maker Software • 925 Kenyon Ave. #16 Englewood, CO 80110
303-762-1001 FAX 303-762-0762

CIRCLE 335 ON READER SERVICE CARD

MacUser subscribers are responsive mail order buyers.

Nearly 2 in 3 subscribers made a purchases within the past 6 months – 74% of these purchased from a mail order ad they saw in a computer magazine.

Reach these responsive business buyers. Call your MacUser Marketplace account representative today at **800-825-4237.**

Source: MacUser Mail Order Report, 1991

CLASSIFIED

PUBLIC DOMAIN

FREE
MAC & IBM SOFTWARE
CATALOG
32 Pages! ASP Member

SOFTSHOPPE, INC.
P.O. BOX 19069
IRVINE, CA. 92714
Tel: (714) 261-0114
FAX: (714) 261-0116



Toll-Free—24 Hrs.
1-800-851-8089

CIRCLE 342 ON READER SERVICE CARD

REAL ESTATE

Real Estate Software
with over a decade of experience

- For Realtors®, ***Real Estate Connections*** — $395
- For investors, ***Real Estate Investment Analysis*** — $295
- For owners and managers, ***Property Management III*** — $395 and up

PLUS six more professional-quality applications

REALDATA®
Orders: 800-899-6060
Info: 203-838-2670

CIRCLE 343 ON READER SERVICE CARD

MISCELLANEOUS/ACCESSORIES

DUST COVERS



Breathable Anti-Static
ONLY $29.95
includes keyboard cover

Styles Include: Golf, Pig, Overalls & more.
Plain Covers & Custom Sizes Available
To order, or for FREE Brochure:
1-800-477-7787
Computer Clothes
Int'l (412) 343-7787 • Dealer Inquiries Welcome
P.O. Box 14611, Pittsburgh, PA 15234

CIRCLE 346 ON READER SERVICE CARD

DUST COVERS



Please Call With Any Questions!

ALL FABRIC

- *Heat Ventilating, will not become stiff or crack with age!*
- *Easy on & off!*
- *Machine Wash & Dry!*
- ***Highest Quality, Custom-Fit!***
- *All makes & models!*
- *Custom orders!*
- *Tan, Navy, Royal, Red, Maroon, Gray, Brown or Black*
- ***100% Satisfaction Guaranteed!***
- *Outstanding service since 1983!*

Quadra, Performa, IIvx. Please call
11-30 Mac Classic & Kybd ... 24.95
10-75 Mac SE & Ext Kybd ... 24.95
11-35 Mac IIsi Computer Only 15.95
11-36 Mac IIsi,13"HR & E.Kb. 29.95
10-73 Mac II,13"HR & Ext.Kb 29.95
11-02 Mac II,IIx,IIFx CPU ... 19.95
11-01 Mac IIci Computer Only 15.95
10-98 Mac IIci, 13"HR & E.Kb 29.95
11-33 Mac LC, 13"HR & Kybd 29.95
11-32 Mac LC, 12" Mntr & Kb 29.95
10-88 Mac Extended Kybd ... 9.95
Add $4.00 Shipping & Handling (Check, MO, COD, VISA/MC) *others 21.95

11-74 Apple 16"Color Display 24.95
11-34 AppleColor 13"HR Mntr 19.95
11-23 Radius Pivot Monitor ... 24.95
10-95 Radius TPD - 19" ... 24.95
11-22 Super Mac 19" Clr Mntr 29.95
10-37 ImageWriter II ... 15.95
10-90 LaserWriter II ... 24.95
11-28 Personal LaserWriter ... 24.95
11-52 StyleWriter ... 15.95
91-22 H-P DeskWriter ... 19.95
11-40 T.I. microLaser PS ... 19.95
SKIN Apple keyboard skins ... 15.95*

CO-DE-CO Computer Dust Covers
800-735-1584

CIRCLE 347 ON READER SERVICE CARD

SCIENTIFIC

The source for affordable scientific software

FREE CATALOG!

RockWare *Scientific Software*

Over 300 applications for the Mac & PC!

4251 Kipling St., Suite 595 • Wheat Ridge, CO 80033 • (303) 423-5645 •
FAX (303) 423-6171 • RockFAX (303) 423-7112 FAX on-demand product information

STATISTICS

LIONHEART

Titles Include: Quality Control; Parameter Design; Experimental Statistics; Business Statistics; Regression; Biometrics; Project Planner; Surveys & Questionnaires; Decision Analysis; Linear & Nonlinear Programming; Optimization & Risk; Forecasting & Time Series; Sales & Market Forecasting; Econometrics; Multivariate Analysis; Cluster Analysis. Priced at $145. Details given in free catalog.

P.O. Box 4056
Allentown, PA 18105
Tel: (514) 933-4918
Fax: (514) 939-3087

CIRCLE 345 ON READER SERVICE CARD

In the next 12 months, 77% of MacUser subscribers will purchase Macintosh products by mail order or phone.

Will they buy from you?

Get your share of the business. Call your MacUser Marketplace account representative today at **800-825-4237.**

Source: MacUser Mail Order Report, 1991

TRAVEL/LEISURE

Special Places is a travel guide which features only high quality, privately-owned lodgings and restaurants in the West. This 5th-edition book is now available in one Hypercard stack, where you'll discover romantic hideaways, family adventures and peaceful retreats. $17.95 includes shipping. 206-392-0451 fax 206-392-7597

Special Places ...for the traveling MacUser

Don't travel the West without us!

CIRCLE 344 ON READER SERVICE CARD

In the past 12 months, 8 in 10 MacUser subscribers purchased products by mail order; 91% of these purchased software through mail order.

Did they buy from you?

Source: MacUser Mail Order Report, 1991

DISKETTE COPY SERVICES

DUPLICATION FROM $.88
HIGHEST QUALITY MEDIA

Macintosh 3.5" DS/DD duplication starts at just **$.88**. Prices go even lower as you continue to order!

- Duplication + 100% Verification
- Custom Labels/Sleeves/Mailers
- Custom Packaging & Assembly
- Colored Media Available
- Special Rates For Demo Software & Site Licensing
- Educational Discounts Available
- 24 Hour Turn-Around
- Guaranteed Products

800-255-3142
Diversified Systems Group, Inc.
PO Box 1114, Issaquah WA 98027

CIRCLE 349 ON READER SERVICE CARD

DUST COVERS
ComputerWear
100% COTTON CANVAS



Breathable! Static-Free! Beige with Grey trim
For Computers, Keyboards, Printers & Lasers
All Popular Models. Superior Quality. Best Price

NEW! ViziFlex-Seels SKINS for Keyboards



1-(800) 826-5761
Contemporary ComputerWear
201 Chester Ave San Francisco CA 94132

CIRCLE 348 ON READER SERVICE CARD

SUPPLIES

TONER! New & Remanufactured toner cartridges & other supplies for laser printers!

RIBBONS! New and Reloaded ribbon cartridges for impact printers!

ink jet refills!

- RECYCLE & SAVE up to 70% on printer supplies!
- Friendly service & great products for over 20 years.

CALL FOR FREE SUPPLIES CATALOG

800-426-8196
We buy empty toner cartridges

WILLOW

CIRCLE 350 ON READER SERVICE CARD

TRAINING

Rent MacAcademy™ Videos

Learn Fast

Through the mail. Over 85 different titles. Two week rental, including S&H, costs less than a $1 a day. Return postage prepaid. Get a free catalog.

CareerTAPES® Enterprises PO Box 309 Center Harbor NH 03226 (603) 253-7470

CIRCLE 351 ON READER SERVICE CARD

No One Knows How To Work The System Like Don Crabb.



"He never pulls his punches; his commentary is the genuine article . . . Crabb has a splendid way with the technical prose required to tell someone how, when, and why to do something."
ROGER EBERT

ISBN 1-56276-029-7
$24.95

No one can give you a better introduction to System 7 than Don Crabb, the leading expert on Macintosh and popular *MacWEEK* columnist. This book offers the tips and techniques you need to get the most from Macintosh's innovative operating system. It covers everything from memory management to working across networks, including customizing the System 7 environment, improving type quality (both on-screen and printed), and developing new system management strategies.

Expertly written and illustrated, *MacWEEK Guide to System 7* is your guided tour of the completely reworked Macintosh environment. Whether you're a novice who needs to walk through each feature step-by-step, or a veteran looking for the best ways to take advantage of the new technology, you'll find this book an invaluable companion. Available at booksellers, through Ziff-Net Online Services (command lines: GO ZNT, GO ZDBOOKS), or call

ZIFF-DAVIS ZD PRESS

© 1991 Ziff-Davis Press
1004

1-800-688-0448

PRODUCT INDEX

ADVERTISER	PAGE
Database Management	
Claris 800-3CLARIS	78-79
Helix Technologies 800-364-HELIX	259
Helix Technologies 800-36-HELIX	261
Display Systems & Video	
Digital Vision, Inc. 617-329-5400	69
Mobius Technologies, Inc. 800-800-4334	9
NEC Technologies 800-NEC-INFO	Covers 5-8
Radius, Inc. 800-227-2795	322-323
Education	
MacAcademy 800-527-1914	68
Entertainment	
Inline Design 203-435-4995	70
Financial Management	
Aatrix Software 800-426-0854	314
CheckMark 800-444-9922	324
ChipSoft	277
General Hardware & Accessories	
Hardware That Fits 800-364-FITS	134-183
Lind Electronic Design 800-659-5956	55
Verbatim Corporation 704-547-6500	62
Graphics & Design	
AGFA Div. - Type 800-424-TYPE	329
Claris 800-3CLARIS	11
Electronics For Imaging 800-285-4565	57
Fractal Design Corporation 408-688-8800	327
Letraset 800-343-TYPE	75
Microsoft	188-189
Multi-Ad Services, Inc. 800-447-1950 ext. 355	64
Input Devices	
Kensington 800-535-4242	317
Leaf Systems Inc. 508-460-8300	255
Leaf Systems Inc. 508-460-8300	256
Mail Order	
APS Technologies 800-874-1345	263-267
Bottom Line Distribution 900-420-3525	2-5
Bottom Line Distribution 900-420-3636	120-121
ClubMac 800-854-6227	302-303
Mac Depot 800-222-2808	91-102
Mac & More 800-945-1MAC	285
Mac's Place 800-367-4222	268
MacCenter 800-950-3726	208-211
MacLand 800-333-3353	292-293
MacProducts, USA 800-622-3475	124-125
MacWarehouse 800-255-6227	279
Softdirect 800-800-2220	297
Networking & Connectivity	
Dayna 801-531-0600 ext. 351	83
Dayna 801-531-0600 ext. 351	291
Farallon 800-998-7761	12
Focus Enhancements 800-538-8866	111
Focus Enhancements 800-538-8866	113
Focus Enhancements 800-538-8866	115
Focus Enhancements 800-538-8866	117
Organizational Tools	
AEC Software 800-346-9413	49

ADVERTISER	PAGE
After Hours Software 818-780-2220	60
Claris 800-3CLARIS	45
Microsoft	Covers 2-4, 1
Output Devices	
CalComp 800-932-1212	80
DEC 800-DEC-INFO ext. 843	30-33
DYNABIT USA, Inc. 800-676-3962	10
GCC Technologies 800-422-7777	281
Hewlett-Packard 800-527-3753 ext. 7135	20-21
Hewlett-Packard 800-552-8500 ext. 7109	88
Hewlett-Packard 800-35HPMAC ext. 7036	228-229
NEC Technologies 800-NEC-INFO	306-307
NewGen Systems 800-756-0556	289
Texas Instruments 800-527-3500	321
Xerox Corporation 800-TEAM-XRX ext. 702	51
Performance Enhancers	
dgr Technologies, Inc. 800-235-9748	6
Logica Research, Inc. 512-836-2168	287
Scanners	
AGFA Div. - Scanner 800-685-4271	46-47
Hewlett-Packard 800-35HPMAC ext. 7036	228-229
Microtek Lab, Inc. 800-654-4160	86
UMAX Technologies 800-562-0311	43
Spreadsheets & Numerical Analysis	
Abacus Concepts 510-540-1949	333
Delta Point, Inc. 800-446-6955 ext. 105	271
Lotus 800-448-2500	52-53
Storage Systems	
APS Technologies 800-874-1345	263-267
FWB Inc. 415-474-8055	84
Liberty Systems, Inc. 408-983-1127	333
O.C.E.A.N. Microsystems, Inc. 800-944-6232	332
PLI 800-288-8754	35
PLI 800-288-8754	37
PLI 800-288-8754	39
Telecommunications	
Supra 800-944-8772	72
Utilities	
Aladdin Systems, Inc. 408-761-6200	325
Berkeley Systems 510-540-5535	319
Dantz Development Corp. 510-849-0293	64
DataViz, Inc. 800-733-0030	41
Datawatch 919-490-1277	82
Insignia Solutions 800-848-7677	58
Insignia Solutions 800-848-7677	295
Kent Marsh Ltd. 800-325-3587	76
Leader Technologies 714-757-1787	13
Maxa Corporation 800-788-6292	301
Now Software 800-237-3611	14-15
Software Security 203-329-8870	63
Symantec Corporation 800-343-4714 ext. 754-F	71
Utilitron 800-428-8766	8
Word Processing	
Microsoft	272-273
Microsoft	275
General	
Apple Computer, Inc.	24-25
Apple Computer, Inc.	65-67

AD INDEX

MacUser
950 Tower Lane, 18th Floor
Foster City, CA 94404
Phone (415) 378-5600
Fax (415) 378-6903

National

Janet Ryan, Publisher (415) 378-5666
Jonathan A. Lane, Assoc. Publisher (415) 378-5640
Jeff Cohen, National Sales Director (415) 378-5692
Elizabeth McGinnis, Advertising Coordinator (415) 378-5606
Paul A. Fusco, Sales Manager-Marketplace (212) 503-5866

East

Northeast (MA, ME, NH, RI, VT, CT, east Canada)

Gina Ciampa, District Manager
Mystic Center, 10 President's Landing
Medford, MA 02155; (617) 393-3065
Nancy Romano, Account Representative (415) 378-5657
Kristina Sweet, Sales Assistant (617) 393-3064

Mid-Atlantic/Southeast (NY, NJ, PA, DE, MD, DC, VA, WV, NC, SC, GA, FL)

John DeCesare, District Manager
One Park Ave.
New York, NY 10016; (212) 503-5416
Karen Anderson, Account Representative (415) 378-5677
Janice Johnson, Sales Assistant (212) 503-5144

Central (WI, IN, MO, OH, MI, IA, ND, SD, AL, MS, TN, MN, OK, KS, IL, KY, LA, NE, AR, TX, central Canada)

Stephen Shore, District Manager
5956 Sherry Lane, Suite 625
Dallas, TX 75225
(214) 360-5785
Joann Casey, Account Representative (415) 378-5622
Molly Eastin, Sales Assistant (214) 360-5780

West

Northwest CA (San Francisco and north), NV, AK, OR, HI, MT, WA, ID, Canada (British Columbia, Alberta, and Saskatchewan)

Lynn Ingham, District Manager
950 Tower Lane, 18th Floor
Foster City, CA 94404
(415) 378-5628
Laurie Eddy, Account Representative (415) 378-5658

Bay Area (Carmel to San Francisco)

Pam Ott, District Manager
950 Tower Lane, 18th Floor
Foster City, CA 94404
(415) 378-5605
Mary Beth Plaskon, Account Representative (415) 378-5651
Colleen Dasher, Sales Assistant (415)378-5634

Southwest CA (San Luis Obispo county and south), AZ, NM, UT, WY, CO

Lee J. Uniacke, District Manager
(213) 351-1842
Amanda Waterfield, District Manager
(213) 351-1841
3530 Wilshire Blvd.
Los Angeles, CA 90010
Deborah Tyo, Account Representative (415) 378-5630
Lillian Valencia, Sales Assistant (213) 351-1840

Ziff-Davis Magazine Networks

Ziff-Davis MacNET Advertising Sales: MacUser and MacWEEK in combination.

J. Samuel Huey, Group Vice President (415) 578-7310
Joseph Gillespie, Managing Director (212)503-5650

RS#	ADVERTISER	PAGE
69	Aatrix Software	314
248	Abacus Concepts	333
100	AEC Software	49
101	AEC Software	49
N/A	After Hours Software	60
180	AGFA Div. - Scanner	46-47
222	AGFA Div. - Type	329
209	Aladdin Systems, Inc.	325
N/A	Apple Computer, Inc.	24-25
N/A	Apple Computer, Inc.	65-67
146	APS Technologies	263-267
N/A	Berkeley Systems	319
N/A	Bottom Line	2-5
N/A	Bottom Line	120-121
43	CalComp	80
86	CheckMark	324
N/A	ChipSoft	277
N/A	Claris	11
N/A	Claris	45
N/A	Claris	78-79
46	ClubMac	302-303
28	Dantz Development Corp.	64
172	DataViz, Inc.	41
75	Datawatch	82
133	Dayna	83
134	Dayna	291
N/A	DEC	30-33
42	Delta Point, Inc.	271
N/A	dgr Technologies, Inc.	6
71	Digital Vision, Inc.	69
14	DYNABIT USA, Inc.	10
73	Electronics For Imaging	57
178	Farallon	12
77	Focus Enhancements	111
78	Focus Enhancements	113
125	Focus Enhancements	115
126	Focus Enhancements	117
67	Fractal Design Corporation	327
81	FWB Inc.	84
164	GCC Technologies	281
199	Hardware That Fits	134-183
201	Helix Technologies	259
176	Helix Technologies	261
N/A	Hewlett-Packard	20-21
N/A	Hewlett-Packard	88
N/A	Hewlett-Packard	228-229
70	Inline Design	70
155	Insignia Solutions	58
153	Insignia Solutions	295
130	Kensington	317
36	Kent Marsh Ltd.	76
44	Leader Technologies	13
240	Leaf Systems Inc.	255, 256
190	Letraset	75
22	Liberty Systems, Inc.	333
45	Lind Electronic Design	55
16	Logica Research, Inc.	287
N/A	Lotus	52-53
40	Mac Depot	91-102
41	Mac & More	285
167	Mac's Place	268
83	MacAcademy	68
1	MacCenter	208-211
149	MacLand	292-293
137	MacProducts, USA	124-125
156	MacWarehouse	279
90	Maxa Corporation	301
N/A	Microsoft	188-189
N/A	Microsoft	272-273
N/A	Microsoft	275
N/A	Microsoft	Covers 2-4, 1
179	Microtek Lab, Inc.	86
174	Mobius Technologies, Inc.	9
85	Multi-Ad Services, Inc.	64
203	NEC Technologies	306-307
204	NEC Technologies	Cover 8
213	NEC Technologies	Covers 5-7
31	NewGen Systems	289
32	NewGen Systems	289
170	Now Software	14-15
205	O.C.E.A.N. Microsystems.	332
62	PLI	35
63	PLI	37
64	PLI	39
N/A	Radius, Inc.	322-323
55	Softdirect	297
216	Software Security	63
87	Supra	72
N/A	Symantec Corporation	71
168	Texas Instruments	321
145	UMAX Technologies	43
26	Utilitron	8
162	Verbatim Corporation	62
246	Xerox Corporation	51

Subscription Inquiries/Change of Address

If you want to subscribe to *MacUser* or have a question regarding a subscription, call 800-627-2247 (U.S. and Canada only) or 303-447-9330 (all other countries) or fax 303-443-5080 (international subscribers only) or write to *MacUser*, P.O. Box 56986, Boulder, CO 80322-6986. New subscriptions and address changes take six to eight weeks. For back issues (subject to availability), send $7 per issue, $8 outside the U.S., to Back Issues Dept., Ziff-Davis Publishing Company, P.O. Box 53131, Boulder, CO 80322. *MacUser* (ISSN 0884-0997) is published monthly, with an extra issue in November, by Ziff-Davis Publishing Company, a division of Ziff Communications Company, One Park Avenue, New York, NY 10016. Editorial Offices: 950 Tower Lane, 18th Floor, Foster City, CA 94404. Telephone: 415-378-5600. U.S. subscription rates are $27 for 12 issues, $45 for 24 issues, and $62 for 36 issues. Additional postage for Canada: Add $16 per year to the U.S. rates for surface mail. Single-copy price is $2.95 (Canada, $3.95). Canadian GST registration #R-123669673. POSTMASTER: Send address changes to *MacUser*, P.O. Box 56986, Boulder, CO 80322-6986. Second-class postage paid at New York, NY 10016, and at other mailing offices.

MacUser READER SERVICE CARD FREE INFORMATION

IT'S AS EASY AS 1, 2, 3

1. Check off your answers to the six research questions.
2. Circle the numbers on the card that correspond to the ads or articles you'd like more information about.
3. The literature will be mailed to you from the advertiser free of charge.

CIRCLE FOR FREE INFORMATION

Void after May 31, 1993

001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025 026 027 028 029 030 031 032 033 034 035 036 037 038 039 040 041 042 043 044 045 046 047 048 049 050
051 052 053 054 055 056 057 058 059 060 061 062 063 064 065 066 067 068 069 070 071 072 073 074 075 076 077 078 079 080 081 082 083 084 085 086 087 088 089 090 091 092 093 094 095 096 097 098 099 100
101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150
151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200
201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250
251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300
301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350
351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400
401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450
451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500
501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550
551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600

1. For how many micro computers do you buy products? (check one)
☐ 01) 1-4 ☐ 02) 5-49 ☐ 03) 50+

2. Your primary job function is: (check one)
☐ 01) Administrative/ General Management
☐ 02) MIS/DP, Communications Systems, Programming
☐ 03) Engineering/R&D
☐ 04) Finance/Accounting
☐ 05) Marketing/Sales
☐ 06) Computer Dealer/VAR

3. For which of the following products are you involved in selecting brands/models to be bought by your company or organization? (check all that apply)

4. Which of the following products have you bought in the last 6 months? (check all that apply)

SOFTWARE	Q3	Q4
Accounting	☐ 01	☐ 01
Spreadsheets	☐ 02	☐ 02
Project Managers	☐ 03	☐ 03
Word Processors	☐ 04	☐ 04
Database Managers	☐ 05	☐ 05
Graphics	☐ 06	☐ 06
Integrated Software	☐ 07	☐ 07
Communications	☐ 08	☐ 08
Utilities	☐ 09	☐ 09

HARDWARE	Q3	Q4
Modems	☐ 10	☐ 10
Scanners	☐ 11	☐ 11
Microcomputer	☐ 12	☐ 12
Printers/Plotters	☐ 13	☐ 13
Monitors/Displays	☐ 14	☐ 14
Storage	☐ 15	☐ 15
Add-in Boards	☐ 16	☐ 16
Networking	☐ 17	☐ 17

5. If so, what function do you serve in the buying process? (check all that apply)
☐ 01) Initiation/ Determine Need
☐ 02) Selection of Brand and Model
☐ 03) Selection of Source
☐ 04) Authorization
☐ 05) Other

6. Over the next 12 months, how much will your organization spend on computer products or services? (check one)
☐ 01) over $5 million
☐ 02) $1 - 5 million
☐ 03) $500,000 - $999,999
☐ 04) $100,000 - $499,999
☐ 05) $50,000 - $99,999
☐ 06) $10,000 - $49,999
☐ 07) under $10,000

MU 92 BG-4

PLEASE PRINT CLEARLY

Name

Title | Telephone

Company Name

Address

City | State | Zip

☐ Please send me a one-year (12 issue) subscription to MacUser for $19.97. Offer valid in U.S. only.

Free Product Information

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 433 RIVERTON, NJ

POSTAGE WILL BE PAID BY ADDRESSEE

MacUser
P.O. BOX 1688
RIVERTON, NJ 08077-9688



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 433 RIVERTON, NJ

POSTAGE WILL BE PAID BY ADDRESSEE

MacUser
P.O. BOX 1688
RIVERTON, NJ 08077-9688

MacUser READER SERVICE CARD FREE INFORMATION

IT'S AS EASY AS 1, 2, 3

1. Check off your answers to the six research questions.
2. Circle the numbers on the card that correspond to the ads or articles you'd like more information about.
3. The literature will be mailed to you from the advertiser free of charge.

CIRCLE FOR FREE INFORMATION

Void after May 31, 1993

001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025 026 027 028 029 030 031 032 033 034 035 036 037 038 039 040 041 042 043 044 045 046 047 048 049 050
051 052 053 054 055 056 057 058 059 060 061 062 063 064 065 066 067 068 069 070 071 072 073 074 075 076 077 078 079 080 081 082 083 084 085 086 087 088 089 090 091 092 093 094 095 096 097 098 099 100
101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150
151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200
201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250
251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300
301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350
351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400
401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450
451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500
501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550
551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600

1. For how many micro computers do you buy products? (check one)
☐ 01) 1-4 ☐ 02) 5-49 ☐ 03) 50+

2. Your primary job function is: (check one)
☐ 01) Administrative/ General Management ☐ 03) Engineering/R&D ☐ 04) Finance/Accounting
☐ 02) MIS/DP, Communications Systems, Programming ☐ 05) Marketing/Sales ☐ 06) Computer Dealer/VAR

3. For which of the following products are you involved in selecting brands/models to be bought by your company or organization? (check all that apply)

4. Which of the following products have you bought in the last 6 months? (check all that apply)

SOFTWARE	Q3	Q4
Accounting	☐ 01	☐ 01
Spreadsheets	☐ 02	☐ 02
Project Managers	☐ 03	☐ 03
Word Processors	☐ 04	☐ 04
Database Managers	☐ 05	☐ 05
Graphics	☐ 06	☐ 06
Integrated Software	☐ 07	☐ 07
Communications	☐ 08	☐ 08
Utilities	☐ 09	☐ 09

HARDWARE	Q3	Q4
Modems	☐ 10	☐ 10
Scanners	☐ 11	☐ 11
Microcomputer	☐ 12	☐ 12
Printers/Plotters	☐ 13	☐ 13
Monitors/Displays	☐ 14	☐ 14
Storage	☐ 15	☐ 15
Add-in Boards	☐ 16	☐ 16
Networking	☐ 17	☐ 17

5. If so, what function do you serve in the buying process? (check all that apply)
☐ 01) Initiation/ Determine Need
☐ 02) Selection of Brand and Model
☐ 03) Selection of Source
☐ 04) Authorization
☐ 05) Other

6. Over the next 12 months, how much will your organization spend on computer products or services? (check one)
☐ 01) over $5 million ☐ 02) $1 - 5 million ☐ 03) $500,000 - $999,999 ☐ 04) $100,000 - $499,999 ☐ 05) $50,000 - $99,999 ☐ 06) $10,000 - $49,999 ☐ 07) under $10,000

MU 92 BG-4

PLEASE PRINT CLEARLY

Name

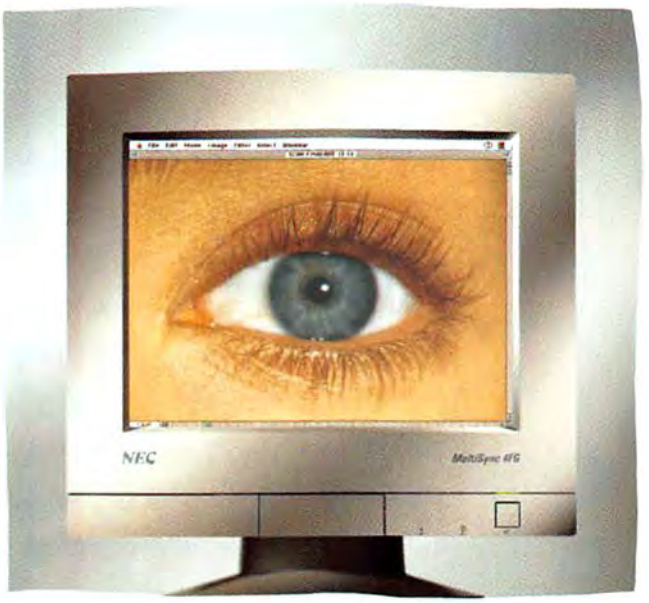
Title | Telephone

Company Name

Address

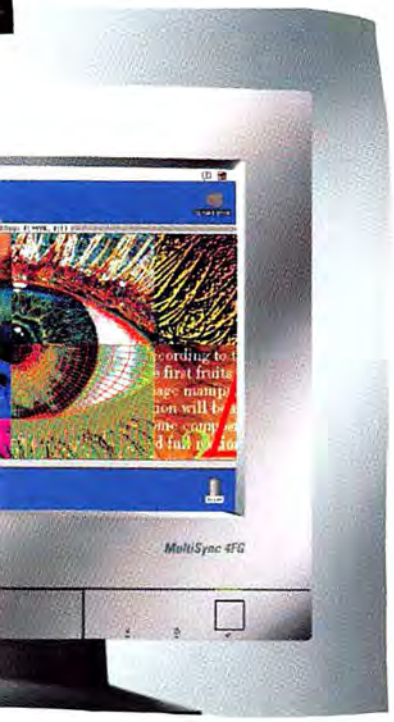
City | State | Zip

☐ Please send me a one-year (12 issue) subscription to MacUser for $19.97. Offer valid in U.S. only.



NEC and Radius have designed a display system so flexible it will make you look.

ting. Or, view more
spread sheets.
ives you a WYSIWYG
utput. While Expanded
rd Mac®II 640 x 480
enlarge images. So you



ll details, retouch in
ipulation programs,
er look at your work.
, you can switch modes
om the control panel.
start your system.
automatically readjusts
you've selected.
e in three different
21"• each with superior

DER SERVICE CARD.

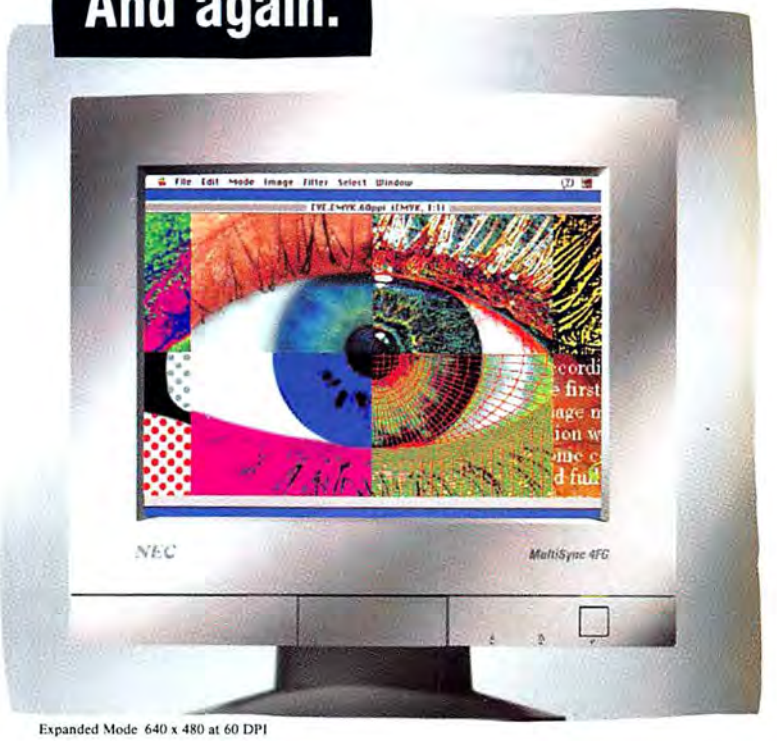
display performance. And include features like FullScan™ capability for edge-to-edge images, and our exclusive AccuColor™•• Control System, which allows you to match on-screen color to your printed output or personal preference.



There are also two MacFG™ boards, for 8-bit or 24-bit color; both include FG custom display timings in ROM.

For more information, call 1-800-NEC-INFO. (In Canada, 1-800-343-4418.) Or for information via fax, call NEC FastFacts™ 1-800-366-0476, request #62234. One look at these display systems, and you're sure to see things our way.

And again.

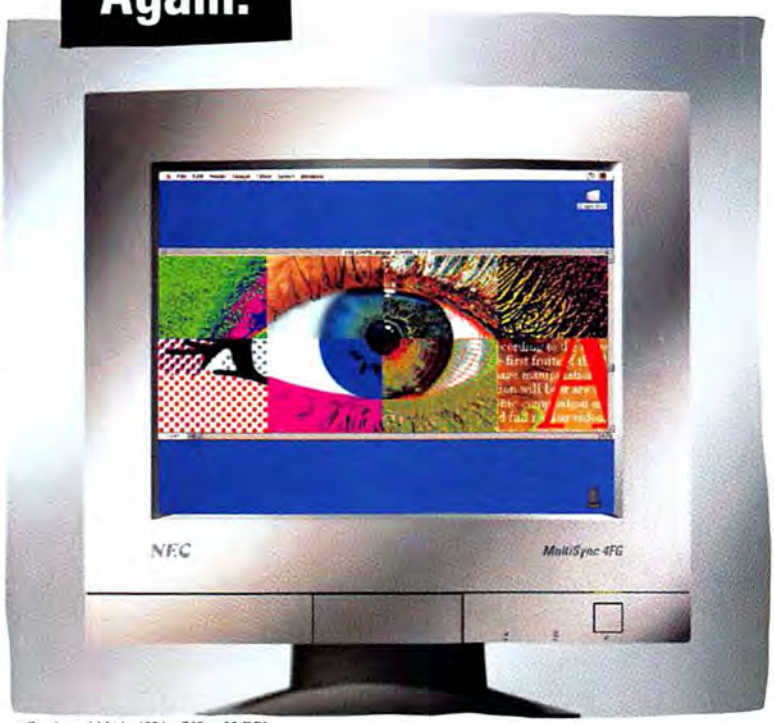


Expanded Mode 640 x 480 at 60 DPI

Because ⬆ is the way you want to go. **NEC**

NEC Technologies, Inc. All other trademarks are property of their respective owners. © 1992 NEC Technologies, Inc.

Again.



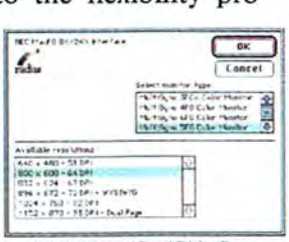
Condensed Mode 1024 x 768 at 93 DPI

Made for Macs.
We've designed our new FG series of monitors specifically for the Macintosh®. We also make many other Mac compatible peripherals, from CD-ROM readers to a full line of printers.

Feel free to stare. After all, you've never seen a display system quite like this.

Presenting the MultiSync® FG™ Display System. A unique combination of NEC's award-winning monitor technology and a display interface card designed specifically for NEC by Radius™.

Now you can use all your applications more effectively. Thanks to the flexibility provided by multiple viewing modes.



MacFG Control Panel Dialog Box

For example, Condensed modes let you increase resolution and desktop size so you can display more on-screen information. You can put two documents side-by-side for

easy cutting and pa
active cells in your

The 72 DPI mode
view of your final
modes display stand
resolution and also

And again.



WYSIWYG 800 x 600 at 72 DPI

can zoom in on sm
paint and photo-ma
or simply get a clos

And the best part i
at any time. Right fr
Without having to re
Because the monitor
itself to the resolutio

Our monitors com
sizes — 15″, 17″, and

CIRCLE 213 ON REA

MACWORLD MW EDITORS' CHOICE MultiSync 6FG

MACWORLD MW EDITORS' CHOICE MultiSync 3FGx

MacUser Aug 1992 MultiSync 4FG

C&C Computers and Communications



Take a deep breath, let out a loud roar and take a giant leap into the world of CD-ROM. Explore the great cities of the world. Relive the greatest moments in baseball history. Dive into challenging, interactive adventure games. With the CD Express package from NEC, all of this is possible. And more. All it takes is your IBM PC® (or 100% compatible) or Macintosh® computer system and $499. CD Express includes NEC's CDR-25 MPC compliant reader, stereo speakers and 10 interactive CD-ROM titles (over $1000 retail value). Only NEC gives you this much for so little. CD Express. All it takes is $499 to jump right in. For more information call 1-800-NEC-INFO.

CD EXPRESS™ FROM NEC $499*

CD-ROM software included for IBM PC:	CD-ROM software included for Macintosh:
LucasFilm™ Games Loom™	LucasFilm™ Game Favorites
Publish It!™	Publish It!™
Great Cities of the World, Vol. 2	Great Cities of the World, Vol. 2
Interactive Storytime™	Interactive Storytime™
Total Baseball	Total Baseball
The Family Doctor	The Family Doctor
GeoWorks CD Manager™	The Software Toolworks™ World Atlas
The Software Toolworks™ Reference Library	Discis Books™ Aesop's Fables
Bureau Development Inc., Best of the Bureau™	The Manhole™ CD-ROM
Ultima VI The False Prophet/ Wing Commander™	Bureau Development Inc., Best of the Bureau™



*Suggested Manufacturer's Retail Price

MultiSync is a registered trademark and CD Express, MultiSpin and Image are trademarks of NEC Technologies, Inc. All other trademarks are property of their respective owners. © 1992 NEC Technologies, Inc.

Because ⬆ is the way you want to go. NEC

CIRCLE 204 ON READER SERVICE CARD.